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Archaeological Investigation of the Borden Park Development Project, San Antonio, Bexar County, Texas

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Borden Park Development Project

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PAPE-DAWSON ENGINEERS

Transportation | Water Resources | Land Development | Surveying | Environmental

FINAL REPORT

ARCHAEOLOGICAL INVESTIGATION OF THE BORDEN PARK DEVELOPMENT PROJECT SAN ANTONIO, BEXAR COUNTY, TEXAS

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ABSTRACT

Pape-Dawson Engineers, Inc. (Pape-Dawson), in response to a request from Embrey Partners, Ltd. (Embrey), conducted an archaeological investigation for the Borden Park Development Project (Project) in San Antonio, Bexar County, Texas. The Project consists of the development of an approximately 2.06-hectare (ha; 5.1-acre [ac]) tract of privately-owned land and off-site improvements located at 875 East Ashby Place. The Project will include existing building demolition and restoration, new building construction, new utility installation, sidewalk and patio grading and excavation, footpath bridge foundations, and conversion of existing storm water drainage improvements adjacent to the San Antonio River. A historic-age building that once served as the Borden Company Inc.'s Ice Cream and Dairy Products Factory stands within the southeastern corner of the property. This building will not be impacted by the Project. Based on proposed construction plans, depths of impact will vary across the Project Area from 0.3 to 3.1 meters (m; 1 to 10 feet [ft]) below the current ground surface. The Project Area totals 4.1 ha (10.2 ac) in size, consisting of 2 ha (4.9 ac) of private development and 2.1 ha (5.3 ac) of development with an Antiquities Code of Texas (ACT) regulatory nexus.

As the Project is located within the city limits of the City of San Antonio (COSA) and River Improvement Overlay District 2, the Project requires compliance with local regulations. At the municipal level, the Project must comply with the Historic Preservation and Urban Design Section of the Unified Development Code (UDC; Article 6 § 35-630 Designated Archaeological Sites to 35-634 Cemeteries) as implemented by the COSA Office of Historic Preservation. Associated utility installation within COSA right-of-way (ROW) or Texas Department of Transportation ROW and utility easements granted to CPS Energy requires compliance with the ACT as implemented by the Texas Historical Commission (THC). No federal permitting or funding is anticipated for this Project; therefore, compliance with Section 106 of the National Historic Preservation Act will not be necessary.

Consistent with municipal and state regulatory review, the purpose of the investigation was to identify archaeological sites (if present) within the Project Area and assess the potential for the proposed Project to impact archaeological sites listed or considered eligible for listing as State Antiquities Landmarks (SALs) or within the National Register of Historic Places (NRHP). Cultural resource investigations for the Project consisted of a background study, archaeological trenching, hand excavation of 40-x-40-centimeter (cm) column samples, and focused archival research. UDC-compliant archaeological field investigation of the Project Area occurred in September 2019, and further UDC- and ACT-compliant investigation occurred in

May and August 2020. A total of 15 archaeological trenches and two column samples were excavated during the investigation in accordance with a research design approved by the OHP on February 18 and May 19, 2020, and by the THC on May 20, 2020, under Texas Antiquities Permit No. 9450. Dr. Karissa Basse served as Principal Investigator for UDC- and ACT-compliant investigations, while Dr. Nesta Anderson served as the Principal Investigator for the initial UDC-compliant investigation. Dr. Karissa Basse and Senior Project Archaeologist Adam Leroy led the field efforts and were assisted by Project Archaeologist Jacob Sullivan, as well as archaeologists Mikayla Mathews, Mason Miller, and Sheldon Smith.

Field investigations resulted in the documentation of one newly recorded archaeological site (41BX2384). Site 41BX2384 is a multicomponent site consisting of a subsurface artifact scatter containing predominantly early to mid-twentieth century domestic and architectural materials, as well as a low frequency of non-diagnostic prehistoric lithic materials of unknown temporal affiliation. Prehistoric and historic artifacts related to site 41BX2384 were observed during subsurface investigations from a total of six trenches and two column samples across the Project Area. While no intact archaeological deposits were identified, one feature likely associated with a twentieth century embankment or erosion control measure within the relic channel of the San Antonio River was identified during trenching. In addition, no diagnostic artifacts were recovered that would link cultural materials observed within the Project Area to 41BX13, a nearby SAL- and NRHP-eligible archaeological site.

The historic artifact scatter contained within site 41BX2384 is likely associated with the Schooman family, who lived within the Project Area during the early to mid-twentieth century. Research indicates that the Schooman family does not appear to have been significant to local or regional development of the area. Given the paucity of diagnostic materials and absence of stratified deposits, overall disturbance, and lack of diagnostic artifacts associated with a single intact feature, site 41BX2384 is unlikely to yield any significant information regarding the historic or prehistoric occupation of the area. Pape-Dawson recommends site 41BX2384 be considered not eligible for SAL/NRHP designation within the Project Area.

Based on the results of these investigations, no significant archaeological sites will be impacted by the Project, and Pape-Dawson recommends no further work within the Project Area as currently defined. However, if undiscovered archaeological deposits or human remains are encountered during construction, it is recommended that all work in the vicinity should cease and that the discovery be evaluated by a qualified archaeologist who can provide guidance on how to proceed in accordance with applicable municipal and/or state regulations.

Materials collected as part of the UDC-compliant investigation are to be returned to the landowner or discarded at the landowner's discretion following the conclusion of the consultation process. Materials collected as part of the ACT-compliant investigation are to be selectively curated in coordination with the THC following completion of the final report. All records generated during the Project will be curated at the University of Texas at San Antonio Center for Archaeological Research in accordance with THC requirements for State Held-In-Trust collections.

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CHAPTER 1: INTRODUCTION

On behalf of Embrey Partners, Ltd. (Embrey), Pape-Dawson Engineers, Inc. (Pape-Dawson) conducted an archaeological investigation for the Borden Park Development Project (Project) in San Antonio, Bexar County, Texas (**Figure 1**). The Project consists of the development of an approximately 2.06-hectare (ha; 5.1-acre [ac]) tract of privately-owned land located at 875 East Ashby Place and off-site improvements. The Project will include existing building demolition and restoration, new building construction, new utility installation, sidewalk and patio grading and excavation, footpath bridge foundations, and conversion of existing storm water drainage improvements adjacent to the San Antonio River. A historic-age building that once served as the Borden Company Inc.'s Ice Cream and Dairy Products Factory stands within the southeastern corner of the property. This building will not be impacted by the development. Based on proposed construction plans, the Project Area totals 4.1 ha (10.2 ac), consisting of 2 ha (4.9 ac) of private development and 2.1 ha (5.3 ac) of development with an Antiquities Code of Texas (ACT) regulatory nexus (**Figure 2**). Depths of impact will vary across the Project Area from 0.3 to 3.1 meters (m; 1 to 10 feet [ft]) below current ground surface.

As the Project is located within the City of San Antonio (COSA) city limits and the River Improvement Overlay (RIO) District 2, the Project requires compliance with local regulations. At the municipal level, the Project must comply with the Historic Preservation and Urban Design Section of the Unified Development Code (UDC; Article 6 § 35-630 Designated Archaeological Sites to 35-634 Cemeteries) as implemented by the COSA Office of Historic Preservation (OHP). Associated utility installation within COSA right-of-way (ROW) or Texas Department of Transportation (TxDOT) ROW and utility easements granted to CPS Energy (CPS) requires compliance with the ACT as implemented by the Texas Historical Commission (THC). No federal permitting or funding is anticipated for this Project; therefore, compliance with Section 106 of the National Historic Preservation Act is not necessary. No human remains and/or abandoned or unknown cemeteries were encountered during investigations; therefore, compliance with Chapters 711 and 715 of the Texas Health and Safety Code was not necessary.

Consistent with municipal and state regulatory review, the purpose of the investigation was to identify archaeological sites (if present) within the Project Area and assess the potential for the proposed Project to impact archaeological sites listed or considered eligible for listing as State Antiquities Landmarks (SALs) or within the National Register of Historic Places (NRHP).

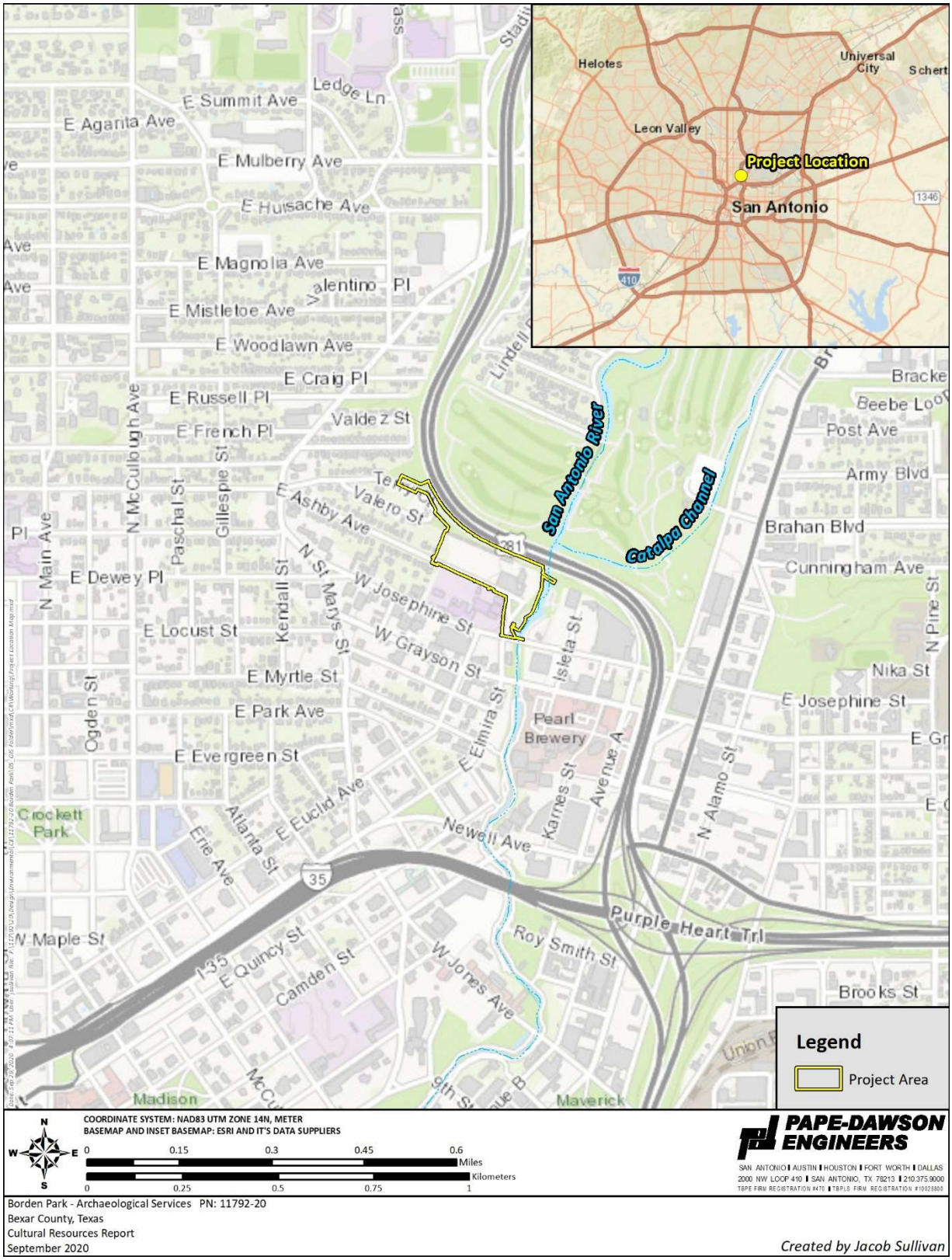

Figure 1. Project location map.

Figure 2. Project Area map on aerial background.

Cultural resource investigations for the Project consisted of a background study, archaeological trenching, hand excavation of 40-x-40-centimeter (cm; 19.7-x-19.7-inch [in]) column samples, and focused archival research. UDC-compliant archaeological field investigation of the Project Area occurred in September 2019 and further UDC- and ACT-compliant investigation occurred in May and August 2020. A total of 15 archaeological trenches and two column samples were excavated during the investigation in accordance with a research design approved by the OHP on February 18 and May 19, 2020, and by the THC on May 20, 2020, under Texas Antiquities Permit No. 9450. Dr. Karissa Basse served as Principal Investigator for the UDC- and ACT-compliant investigations, while Dr. Nesta Anderson served as the Principal Investigator for the initial UDC-compliant investigation. Dr. Karissa Basse and Senior Project Archaeologist Adam Leroy led the field efforts and were assisted by Project Archaeologist Jacob Sullivan, as well as archaeologists Mikayla Mathews, Mason Miller, and Sheldon Smith.

Pape-Dawson prepared the following report detailing the results of the intensive archaeological investigation conducted for the Project according to the Council of Texas Archeologists (CTA) Standards and Guidelines for Cultural Resource Management Reports. Following this introduction (**Chapter 1**), the subsequent sections include an overview of the environmental (**Chapter 2**) and cultural (**Chapter 3**) settings of the Project, an overview of the investigative methods employed by Pape-Dawson for the Project (**Chapter 4**), and a discussion of the findings (**Chapter 5**), followed by a summary of the investigation and management recommendations (**Chapter 6**). Additionally, Project design sheets are provided in **Appendix A**, and trench soil data is listed in **Appendix B**.

Materials collected as part of the UDC-compliant investigation are to be returned to the landowner or discarded at the landowner's discretion following the conclusion of the consultation process. Materials collected within permitted portions of the Project Area as part of the ACT-compliant investigation are to be selectively curated in coordination with the THC following the completion of the final report. All records generated during the Project will be curated at the University of Texas at San Antonio Center for Archaeological Research (UTSA-CAR) in accordance with THC requirements for State Held-In-Trust collections.

CHAPTER 2: ENVIRONMENTAL SETTING

This chapter presents a brief description of the Project Area's physical setting, including a summary of the environment, topography, hydrology, flora and fauna, land-use history, geology, and soils.

Located in an urban section of central San Antonio, the Project Area is situated within an emerging development characterized by former industrial and residential structures south of Brackenridge Park. The Project is adjacent to the San Antonio River at 875 East Ashby Place. Areas to the east, south, and west are densely developed. These areas include both residential and industrial complexes, as well as Hawthorne Elementary School. The Project Area is bordered by a small green space and the San Antonio River to the east, East Ashby Place to the south, residential development to the west, and the US 281 TxDOT ROW to the north.

The Project Area is mapped within the San Antonio East (2998-133) United States Geological Survey (USGS) 7.5-minute quadrangle map. The Project landscape is largely characterized by gently sloping terraces of the San Antonio River, which have been subject to extensive modification from development and channelization. The San Antonio River is approximately 20 m (65 ft) east of the Project Area.

Environment

The Project Area is located within the Northern Blackland Prairie subregion of the Texas Blackland Prairies ecoregion. The Northern Blackland Prairie consists of rolling to nearly level plains ranging from 330 to 380 m (1083 to 1247 ft) in elevation (Wermund 1996). The Northern Blackland Prairie contains thermic soils and has an annual precipitation ranging from 71 cm (28 in) in the south to 107 cm (42 in) in the north.

Historically, the Northern Blackland Prairie was predominantly vegetated in tall prairie grasses consisting of little (*Schizachyrium scoparium*) and big bluestem (*Andropogon gerardii*), tall dropseed (*Sporobolus asper*), and yellow indiangrass (*Sorghastrum nutans*) (Griffith et al. 2007; Natural Resources Conservation Service [NRCS] 2006). Additional common vegetation on the prairie consisted of silver bluestem (*Bothriochloa laguroides*), switchgrass (*Panicum virgatum*), sideoats grama (*Bouteloua curtipendula*), eastern gamagrass (*Tripsacum dactyloides*), and vine mesquite (*Hopia obtusa*) (NRCS 2006). Some bottomland forests occupied riparian areas in the northern portion of the ecoregion, which were vegetated with Shumard oak (*Quercus shumardii*) bur oak (*Q. macrocarpa*), sugar hackberry (*Celtis laevigata*), ash (*Fraxinus spp.*), elm (*Ulmus spp.*), pecan (*Carya illinoinensis*), and eastern cottonwood (*Populus deltoides*).

This historic vegetation supported diverse wildlife, including bison (*Bovidae spp.*), wolves (*Canis lupus*), greater prairie chickens (*Tympanuchus cupido*), and pronghorns (*Antilocapra americana*). However, in the late-nineteenth and early-twentieth centuries, farming replaced ranching as the predominant commercial activity, which led to the clearing of tall prairie grasslands and bottomland forests. During this period, non-native grasses, such as Bermuda grass (*Cyndon dactylon*), Johnson grass (*Sorghum halepense*), and King Ranch bluestem (*Bothriochloa ischaemum*) were introduced.

Today, the majority of the Northern Blackland Prairie has an extended history of modification and most of the prairie has been converted to cropland, non-native pasture, and expanding urban uses, especially within the San Antonio area (Griffith et al. 2007).

Geology and Soils

Geologically, the Project Area is underlain by Pleistocene to Holocene-aged terrace deposits (Qt) (USGS 2020a). Terrace deposits consist of sand, silt, clay, and gravel in various proportions, with gravel more predominant in older, higher terrace deposits (USGS 2020a).

Soil survey data for the Project was derived from the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey. According to NRCS data, two soil units are mapped within the Project Area: Tinn and Frio (Tf) soils and Lewisville silty clay (LvA) (NRCS 2020) (**Table 1** and **Figure 3**).

Table 1. Soil Series within the Project Area (In Order of Prevalence)

Soil Series	Characteristics	Parent Material	Landform	Thickness of A-Horizon (cm)
Tinn, 0 to 1 percent slopes (Tf)	very deep, moderately well drained, very slowly permeable soils	calcareous clayey alluvium	Floodplains	0-46
Frio, 0 to 1 percent slopes (Tf)	very deep, well drained, moderately slowly permeable soils	calcareous loamy and clayey alluvium	Floodplains	0-102
Lewisville silty clay, 1 to 3 percent slopes (LvA)	very deep, well drained, moderately permeable soils	ancient loamy and clayey calcareous sediments	Upland	0-16

Figure 3. Project Area soils map.

CHAPTER 3: CULTURAL BACKGROUND

Bexar County is located within the Central Texas archaeological region as defined by the THC (Mercado-Allinger et al. 1996). Cultural developments in this region are typically divided into four primary time periods: Paleoindian, Archaic, Late Prehistoric (i.e., prior to Native American-European contact [1528] in Texas) and Post-Contact (i.e., after 1528 in Texas). These classifications are characterized by changes in material culture and subsistence strategies over time, as evidenced by data recovered from archaeological sites. This cultural chronology provides a summary of each major cultural period with reference to significant archaeological work performed in the region.

Precontact Period

Paleoindian Period (11,500 to 8800 B.P.)

Although there is some debate over whether pre-Clovis peoples lived in Texas, there is definitive evidence of a Paleoindian occupation in the region by 11,500 years before present (B.P.). Collins (1995) divides the Paleoindian period into early and late phases, with Dalton, San Patrice, and Plainview points providing a tangible transition between the subdivisions. Paleoindian peoples gathered wild plants and hunted large mammals (e.g., mammoth, bison, etc.), as well as small terrestrial and aquatic species (Bousman et al. 2004; Collins 1995). Projectile points characteristic of the Paleoindian period in Central Texas are generally lanceolate-shaped. Forms common to the region include Clovis, Plainview, and Folsom (Turner and Hester 1999). In Texas, most Paleoindian sites are classified as procurement or consumption sites (Bousman et al. 2004), but a few, such as the Wilson-Leonard site in Williamson County (Collins 1995) and the Pavo Real site in Bexar County (Collins et al. 2003; Figueroa and Frederick 2008; Henderson 1980), have produced burials. Other Paleoindian sites discovered in Bexar County include 41BX47 on Leon Creek (Tennis 1996), the Richard Beene site (41BX831) (Thoms et al. 2005; Thoms and Mandel 2007), and the St. Mary's Hall site (41BX229), the latter of which indicates Paleoindian groups enjoyed a more diverse diet than previously thought (Hester 1978).

As the climate warmed and megafauna disappeared, Paleoindian peoples shifted away from hunting large animals and subsisted on small game, including deer and rabbit, as well as gathering edible roots, nuts, and fruits (Black 1989). This change in food supply, in combination with the manufacture of a different set of stone tools, marks the transition to the Archaic Period.

Archaic Period (8500 to 1300 B.P.)

Usually divided into early, middle, and late (and sometimes transitional) subperiods, the Archaic marks a gradual shift from Paleoindian subsistence strategies to a focus on hunting medium and small animals and gathering wild plants. The period also includes an eventual transition to agriculture. Beginning with Clear Fork gouges and Guadalupe bifaces in the Early Archaic (8500 to 6000 B.P.), Archaic peoples produced a variety of point types (Collins 1995; Turner and Hester 1999).

Early Archaic (8500 to 6000 B.P.)

The variation in points and their scattered distribution in the Early Archaic may indicate smaller groups of people moved over larger territories (Prewitt 1981). In Bexar County, sites with Early Archaic components include the Housman Road site (41BX47), the Richard Beene site (41BX831) (Thoms et al. 2005; Thoms and Mandel 2007), the Higgins site (41BX184) (Black et al. 1998), and the Panther Springs site (41BX228) (Black and McGraw 1985).

Middle Archaic (6000 to 4000 B.P.)

Point types transitioned to Bell-Andice-Calf Creek, Taylor, and Nolan-Travis in the Middle Archaic (6000 to 4000 B.P.) and burned rock middens became commonplace (Collins 1995; Turner and Hester 1999). The Middle Archaic focus on constructing burned rock ovens to cook a diverse array of plant foods suggests a slightly more sedentary lifestyle emerged during the Middle Archaic (Black 1989). Bulverde, Pedernales, Ensor, Frio, and Marcos points in the Late Archaic (4000 to 1300 B.P.) mirror the diversity of point types found in the Early Archaic (Collins 1995; Turner and Hester 1999).

Late Archaic (4000 to 1200 B.P.)

During the Late Archaic, cemeteries, especially associated with rock shelters, became common in Central Texas (Dockall et al. 2006). While the Elm Waterhole site (41BX300) is representative of a Middle Archaic site within Bexar County (McNatt et al. 2000), the Granberg site (41BX17/41BX271) in San Antonio is a multicomponent site with occupations from both the Middle and Late Archaic subperiods.

Transitional Archaic (1200 to 1300 B.P.)

Several technological changes are apparent in the transition from the Archaic period to the Late Prehistoric period. Most notably, the bow and arrow replaced the spear and atlatl, as evidenced by the production of smaller dart points, and eventually arrow points. Another significant innovation was the creation and use of ceramic vessels.

Late Prehistoric (1300 to 250 B.P.)

Various cultural groups began to practice consistent agriculture during the Late Prehistoric period. There is some evidence that peoples in Central Texas may have incorporated agriculture into their lives, but most remained hunter gatherers (Collins 1995). There are also indications that major population movements occurred during this period, along with changes in settlement patterns and perhaps decreased population densities (Black 1989). Archaeologists divide the Late Prehistoric into two phases: the Austin phase, followed by the Toyah phase.

Post-Contact Period (1528 to circa 1950)

While there is some overlap between the Late Prehistoric and Post-Contact periods, Europeans did not explore the interior of what is now Texas until the early sixteenth century and Central Texas area until the seventeenth century. Alonso de Leon's (1689 and 1690) and Domingo Terán de los Rios' (1691) expeditions were likely the some of the first interactions between European and Native groups in the state (de la Teja 1995). According to historical accounts of the expeditions, these early Spanish explorers encountered numerous indigenous groups residing in and near Central Texas (Mercado-Allinger et al. 1996). These groups likely included the Payaya and Pamaya, who resided in the southern plains of Texas, as well as the Tonkawa, Karankawa, Lipan Apache, and Comanche, who entered the area from the northern plains in pursuit of food (Long 2017). In 1691, Spanish explorers traveling through Bexar County created what would become El Camino Real de los Tejas (The King's Highway, also known as the Old San Antonio Road in portions) (United States Department of the Interior 2011). This network of roadways, at least in part, followed existing trails established by the numerous highly mobile indigenous groups in the area.

These explorations helped the Spanish select locations to establish five missions in and around what would later become San Antonio. Don Martín de Alarcón established the first mission, San Antonio de Valero, in 1718 on the west bank of San Pedro Creek, followed by Presidio San Antonio de Bexar and Villa de Bexar (de la Teja 1995). However, the Marqués de San Miguel de Aguayo moved the *presidio* and *villa* to the west side of the San Antonio River by 1722 (Clark et al. 1975). Other missions, including Mission San José y San Miguel de Aguayo, Nuestra Señora de la Purísma Concepción, San Juan Capistrano, and San Francisco de la Espada were established in the area between 1718 and 1731 (Wright 2016). The Native Americans recruited to live at these missions comprised many different groups. It is difficult to identify all the groups that were present; however, due to the variations in spellings of group affiliations recorded by

the Spaniards. These discrepancies were caused by the phonetic complexity of indigenous languages (Campbell 1977). The missions used the Native American labor force to construct *acequias*, or irrigation ditches, to develop self-sustaining communities bordered by farmland (Long 2017).

In 1731, Spain sent 16 families from the Canary Islands to establish the secular village of Villa de Bexar. With the arrival of these families, surveyors platted the city's main plaza, or Plaza de las Islas; a church, and designated a spot for the Casas Reales and residential lots (Spell 1962). In 1773, San Antonio de Bexar was named the capital of Spanish Texas and had a population of about 2,000 (including mission Indians) by 1778 (Fehrenbach 2010).

During the 1820s and early 1830s, American settlers moved to San Antonio in increasing numbers, though the population remained predominately Mexican. In 1824, Texas and Coahuila were united into a single state with the capital at Saltillo. San Antonio fought for Mexican Independence in 1813, then for its own sovereignty during the Texas Revolution (1835 to 1836). The Siege of Bexar and the Battle of the Alamo, in 1835 and 1836, respectively, were both located within San Antonio. After Texas gained its independence from Mexico in 1836, Bexar County was created, and San Antonio was chartered as the county seat (Long 2017). However, this was not the end of conflict in the city; a dispute with Comanche Indians resulted in the Council House Fight in 1840, and Woll's invasion in 1842 precipitated Texas' entrance into the United States as the 28th state. By 1846, San Antonio's population had decreased to approximately 800 people (Fehrenbach 2010).

After the Civil War (1861 to 1865), Bexar County grew larger due to the arrival of the railroad in 1877 (Fehrenbach 2010). Industries in San Antonio, such as cattle, distribution, ranching, mercantile, gas, and oil—as well as military centers—prospered. The city served as the distribution point for the Mexico-United States border, as well as the rest of the southwest. At the turn of the twentieth century, San Antonio was the largest city in Texas with a population of more than 53,000. Much of the city's growth after the Civil War was a result of an influx of southerners fleeing the decimated, Reconstruction-era (1863 to 1877) south. An additional population increase came after 1910, when large numbers of Mexicans moved into Texas to escape the Mexican Revolution (1910 to 1924) (Fehrenbach 2010).

Modernization in San Antonio increased dramatically between the 1880s and 1890s compared to the rest of the United States. Civic government, utilities, railways, street paving and maintenance, the water supply, telephones, hospitals, and a city power plant were all built or planned around this time. The First United States Volunteer Cavalry was organized in San Antonio during the Spanish-American War (1898),

and San Antonio was an important military center for the United States Army and Air Force during both world wars (1914 to 1918; 1939 to 1945). San Antonio's five military bases provided an important economic base and contributed to the evolution of the city's medical research industry (Fehrenbach 2010).

CHAPTER 4: METHODOLOGY

Background Study

Pape-Dawson archaeologists conducted a background literature and records review to determine if the Project Area was previously investigated for cultural resources and to identify any cultural resource sites recorded within a 1-kilometer (km; 0.6-mile [mi]) radius (Study Area). The review included data from the THC Texas Archeological Sites Atlas (Atlas) to identify previously recorded archaeological sites, NRHP-listed properties and districts, SALs, Official Texas Historical Markers (OTHMs), Recorded Texas Historic Landmarks (RTHLs), and cemeteries within the Study Area. Additionally, Pape-Dawson archaeologists reviewed the COSA OHP Explorer Map (2020) to identify Local Historic Districts or Local Historic Landmarks within the Study Area.

Map and Aerial Photograph Review Methods

Pape-Dawson archaeologists also examined recent and historic-age maps and aerial photographs available online (Google Earth Pro 2020; Nationwide Environmental Title Research [NETR] Online 2020; USGS 2020b) to identify historic high probability areas (HHPAs) where historic-age structures (45 years or older) or historic archaeological sites may exist. Pape-Dawson archaeologists also sought to identify previous impacts that may have occurred within the Project Area. Relevant historic maps of San Antonio, including Sanborn Fire Insurance maps, were reviewed as well.

Field Methods

The objectives of the archaeological investigations were four-fold: (1) identify archaeological sites within the Project Area, (2) document the vertical and horizontal extents of any identified sites; (3) provide a preliminary evaluation of each site's eligibility for designation as a SAL/NRHP property; and (4) assess any potential for the Project to impact significant archaeological sites.

The field crew recorded the Project Area, any archaeological sites encountered, and associated feature locations (if present). The crew was equipped with topographic maps, aerial photographs, and historic map overlays of the Project Area, as well as a digital camera. Each archaeologist was also equipped with a compass, appropriate excavation forms, photographic logs, daily journal forms, and appropriate state site forms. All paperwork generated for the Project was subject to daily quality assurance and quality control by the Principal Investigator. Laboratory staff completed the analysis and preparation of any

collected artifacts. An office-based GIS Specialist supported the fieldwork, analysis, and preparation of maps and illustrations for the report.

Archaeologists completed daily written documentation of all observed activities in the form of a daily log supplemented by digital photography, as appropriate. Archaeologists also maintained a photographic log and subsequently downloaded and archived photographic data. Archaeologists documented locations of excavations, sites, and features with a handheld Global Positioning System (GPS) unit with sub-meter accuracy.

Archaeological Trenching Methods

Pape-Dawson archaeologists conducted archaeological trenching within the Project Area to identify any archaeological deposits or features present. In coordination with the COSA OHP and THC, trenches were excavated in select areas of improvement across the Project Area. Trenching was continuously monitored by an archaeologist qualified under the Secretary of the Interior Professional Qualifications Standards and Guidelines (36 CFR 61). Additionally, the trenching effort was performed in accordance with the standards prescribed in the ACT (Texas Natural Resources Code Title 9, Chapter 191), and the CTA Intensive Terrestrial Survey Standards (ITSS) for survey-level mechanical prospection (CTA 2020). Furthermore, all work was performed in compliance with the Occupational Health and Safety Administration regulations for Trenching and Excavation Safety (29 CFR 1926).

Each trench was excavated in 10-cm (4.0-in) levels using a smooth-bladed bucket to expose any potential archaeological deposits or features with minimal disturbance. Trenches were excavated to depth of deposits that substantially predate the Holocene or the maximum depth that can be reached by the machine (approximately 3.4 m [11.2 ft]), and either sloped or stepped for safe entry. Once a trench reached a depth of 1.2 m (4 ft), Pape-Dawson archaeologists scraped down the sidewalls to inspect them for cultural materials or features and for profile documentation. Pape-Dawson archaeologists did not enter trenches once the depths exceeded 1.2 m (4 ft) below surface; however, they continued to visually inspect the wall profiles from the ground surface. Consistent with the CTA ITSS (2020), at least one 3.8-liter (5-gallon) bucket of soil from every third excavator bucket load was screened for cultural materials using ¼-in hardware mesh. Upon completion, each trench was backfilled, and the surface re-contoured to match the surrounding ground surface as feasible.

Site Identification

Archaeological sites were defined as at least five surface or subsurface artifacts greater than 50 years of age observed within a newly recorded boundary, any cultural material greater than 50 years of age recorded within a previously recorded boundary, or any observed archaeological feature greater than 50 years of age. Site boundaries were determined based on both the presence and/or density of surface and subsurface components. Sites were recorded on TexSite forms submitted to the Texas Archeological Research Laboratory to obtain trinomials for newly recorded sites or to document site revisits.

Collection Policy

Pape-Dawson maintained a selective collection strategy for artifacts limited to a representative sample of diagnostic historic and prehistoric artifacts observed during trenching. Non-diagnostic artifacts were documented and photographed in the field. All material collected within publicly-owned land was transported to the Pape-Dawson laboratory for processing, analysis, and curation pursuant to requirements in the permit. Artifacts collected within the privately-owned portion of the Project Area were returned to the landowner or discarded at the request of the client.

Lab Analysis and Curation

Throughout the Project, the organization of records, artifacts, and daily logs was ongoing. Though not required for all portions of the Project, all records generated during the Project were prepared in accordance with THC requirements for State Held-in-Trust collections. Field forms were printed on acid-free paper and completed with pencil. Any artifacts collected during the investigation were washed, air-dried, and stored in 4-milimeter (0.2-in) resealable, archival-quality plastic bags. Each label contained provenience information and a corresponding lot number. If necessary, these artifacts were separated by class and stored in acid-free boxes labeled with standard tags.

All field notes, forms, photographs, and drawings were placed in labeled archival folders. Digital photographs were printed on acid-free paper. Finally, following completion of the investigation, all records from the Project, and the final report, will be curated at UTSA-CAR.

Archival Research

Pape-Dawson historians completed a chain of title search for the property along with limited census and San Antonio City Directory research to identify individuals associated with the historic-age structures

and/or archaeological site identified during the field investigation. The results of the archival research are included in this report.

CHAPTER 5: RESULTS

Cultural resource investigations for the Project consisted of a background study, fieldwork (including archaeological trenching and column samples), and focused archival research. All efforts were conducted in accordance with a research design approved by the OHP on February 18 and May 19, 2020, and by the THC on May 20, 2020, under Texas Antiquities Permit No. 9450. The following chapter presents the results of the background study, field effort, and archival research.

Background Study

Previously Conducted Cultural Resource Investigations

The cultural background study indicates that the majority of the Project Area was previously surveyed. Two previous cultural resource investigations intersect or overlap the Project Area, and 24 additional previous investigations were conducted within the Study Area (**Table 2** and **Figure 4**). However, seven of these investigations, including the two conducted within the Project Area, were completed before 2011 and may not have been performed in accordance with current THC and CTA (2020) survey standards. Furthermore, no additional information regarding the results of the cultural resource investigations performed within the Project Area is available on the Atlas (THC 2020).

In 1979, a cultural resource investigation was conducted on behalf of Texas Parks and Wildlife (TPWD) within the Project Area; however, no additional information regarding the investigation is available on the Atlas (THC 2020). In 2008, SWCA Environmental Consultants Inc. (SWCA) conducted a cultural resources investigation consisting of a survey, monitoring, site testing, and limited data recovery for proposed renovations of the Brackenridge Park Golf Course Renovation project (THC 2020). The investigation resulted in the revisit and testing of three previously recorded archaeological sites (41BX13, 41BX321, and 41BX1396). All three sites are located within the current Study Area. SWCA recommended sites 41BX13 and 41BX1396 as eligible for SAL designation and avoidance was recommended. Additionally, 41BX321 was considered ineligible for SAL designation and no further work was recommended due to a lack of contextual integrity (THC 2020). Limited data recovery activities were conducted at 41BX13 and 41BX1396 to mitigate adverse effects of the Brackenridge Park Golf Course renovations. The remainder of both 41BX13 and 41BX1396 were avoided by the previous undertaking (Carpenter et al. 2014).

Table 2. Previously Conducted Cultural Resource Investigations within Study Area

Investigation Date	Atlas Number	Investigation Type	Agency Sponsor	Investigator	Distance from Project Area
1978	8500003031	Survey	U.S. Army Corps of Engineers (USACE)	–	0.6 km (0.4 mi) east
1979	8500003062	Survey	USACE	–	Intersecting
1979	8500003065	Survey	TPWD	–	24 m (80 ft) northeast
1979	8500080248	Survey	USACE	UTSA-CAR	0.6 km (0.4 mi) south
1986	8500013854	Survey	USACE	–	Intersecting
2008	8500060042; 8100018318	Survey, Testing	COSA	SWCA	48 m (157 ft) north
2010	8500017823	Testing	COSA	Abasolo Archaeological Consultants	1 km (0.6 mi) northeast
2011	8500019891	Survey	COSA	UTSA-CAR	0.4 km (0.2 mi) northeast
2011	8500025338	Monitoring	COSA; USACE	Atkins	0.4 km (0.3 mi) northeast
2011	8500020735	Survey	San Antonio River Authority (SARA)	UTSA-CAR	0.4 km (0.2 mi) northeast
2012	8500021148	Monitoring	COSA	Abasolo Archaeological Consultants	0.8 km (0.5 mi) northeast
2012	8500025731	Monitoring	COSA	UTSA-CAR	0.3 km (0.2 mi) northeast
2012	8500020608	Survey, Testing	San Antonio Water System (SAWS)	Geo-Marine, Inc.	0.4 km (0.2 mi) east
2013	8500060439	–	COSA	UTSA-CAR	1 km (0.6 mi) northeast
2013	8500060467	–	COSA	UTSA-CAR	1 km (0.6 mi) northeast
2014	8500080264	Testing, Monitoring	SARA	UTSA-CAR	1 km (0.6 mi) northeast
2015	8500073743	Monitoring	COSA	SWCA	0.3 km (0.2 mi) southwest
2016	8500080198	Monitoring	Brackenridge Gardens	Pape-Dawson	1 km (0.6 mi) northeast
2016	8500080858	Survey	Alamo Colleges	Raba Kistner Environmental, Inc.	0.5 km (0.3 mi) east
2016	8500080295	Survey, Monitoring	San Antonio Museum of Art	Pape-Dawson	0.9 km (0.5 mi) south

Table 2. Previously Conducted Cultural Resource Investigations within Study Area

Investigation Date	Atlas Number	Investigation Type	Agency Sponsor	Investigator	Distance from Project Area
2017	8500080439	Monitoring, Remote Sensing Survey	SAWS	Raba Kistner Environmental, Inc.	0.5 km (0.3 mi) east
2017	8500080609	Survey, Monitoring	CPS Energy	SWCA	0.6 km (0.4 mi) southeast
2017	8500080873	Monitoring	COSA	UTSA-CAR	0.6 km (0.4 mi) southwest
–	8500080299	–	–	–	0.9 km (0.5 mi) south

Previously Recorded Cultural Resources

There are 91 cultural resources located within the Study Area, including 12 archaeological sites and 79 historic resources (some of which have multiple designations). These cultural resources also include five NRHP properties, four NRHP districts, three SALs, one OTHM, one RTHL, 70 COSA Local Historic Landmarks, seven COSA Local Historic Districts, and one NPS National Historic Trail (OHP 2020;THC 2020). Three of these resources are adjacent to or within the Project Area.

Archaeological Sites

A total of 12 previously recorded archaeological sites are documented within the Study Area, one of which (41BX13) is north of the Project Area and located across US 281 (**Table 3** and **Figure 5**). Site 41BX13, situated within Brackenridge Park, is a prehistoric village/buried campsite situated on a floodplain west of the San Antonio River. The known site boundary is located 70 m (230 ft) north of the current Project Area. The site was originally recorded by the Witte Museum in 1966, but the accompanying report is not available on the Atlas (THC 2020). In 2008, SWCA revisited the site to conduct additional delineation and testing. Cultural material observed within the site boundary dates to the Paleoindian period (THC 2020). Recovered artifacts included burned rock, lithic debitage, a Scottsbluff point, and a blade. Although cultural material encountered above 50 cm below surface (cmbs; 19.7 inbs) was from disturbed contexts, intact cultural materials were encountered between 50 and 100 cmbs (19.7 and 39.4 inbs). Therefore, SWCA recommended the site as eligible for NRHP inclusion and SAL designation (Carpenter et al. 2014). The site was evaluated as NRHP-eligible and designated as a SAL in 2008 (THC 2020).

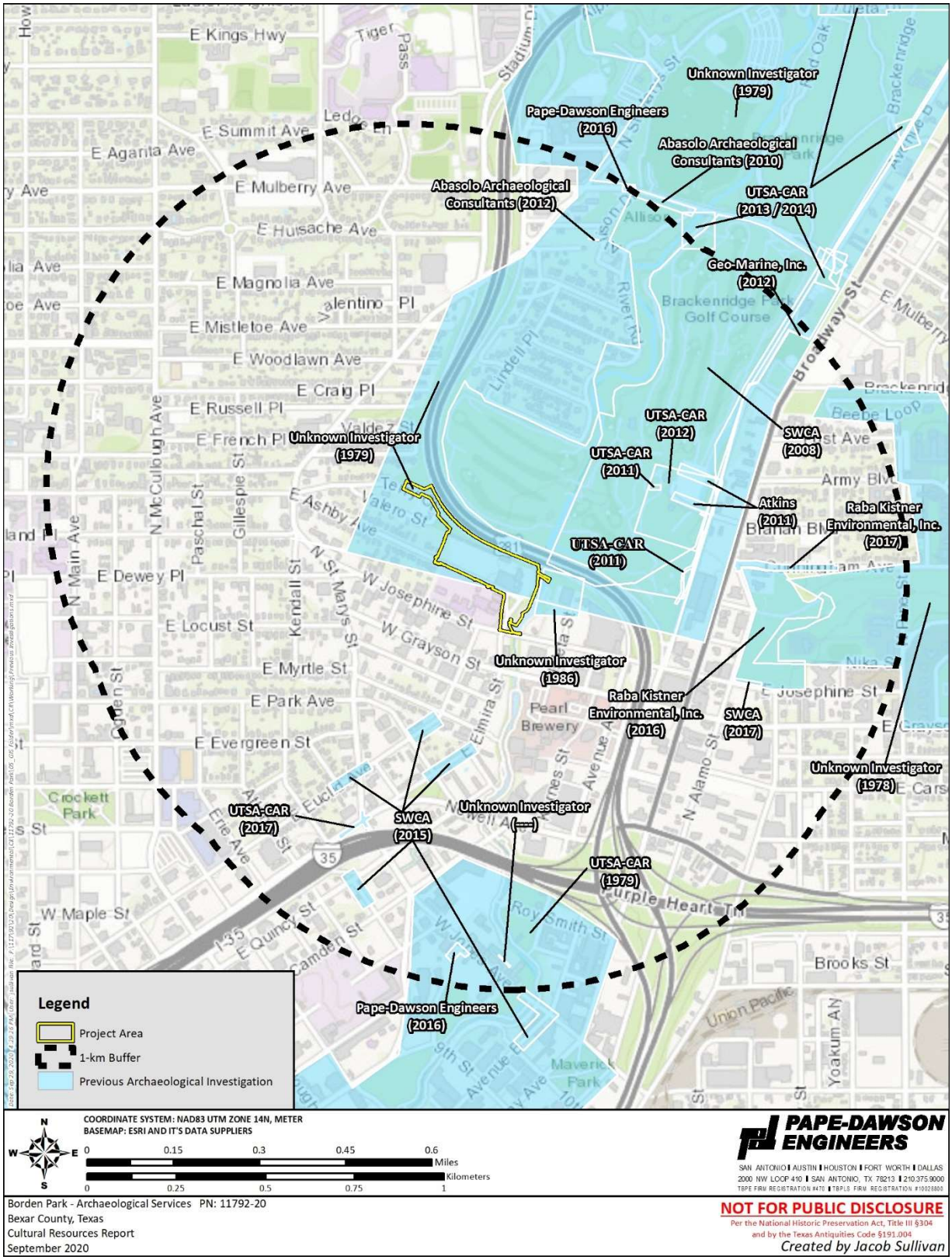

Figure 4. Previously conducted cultural resource investigations within Study Area.

Table 3. Previously Recorded Archaeological Sites within the Study Area

Site Trinomial	Site Type	Cultural Affiliation	Depth of Deposits (cmbs)	Distance from Project Area	Consultant Recommendation	Eligibility According to the Atlas
41BX8	Acequia	Spanish Colonial (ca. 1720)	0–80	0.7 km (0.4 mi) east	UTSA-CAR recommended avoidance	NRHP Eligible (2011)
41BX13	Campsite or village	Late Paleoindian	0–100	70 m (230 ft) north	SWCA recommended avoidance	NRHP Eligible (2008) Designated SAL (2008)
41BX264	Campsite	Middle Archaic to Late Prehistoric	5–130	1 km (0.6 mi) northeast	UTSA-CAR recommended avoidance	NRHP Eligible (2003)
41BX293	Lithic scatter, possible campsite	Middle Archaic to Transitional Archaic	Unknown	0.6 km (0.4 mi) northeast	No recommendation made	No determination made
41BX321	Lithic scatter, isolated ceramic sherd	Unknown Prehistoric; Unknown Historic	0–110	1 km (0.6 mi) northeast	SWCA recommended no further work	NRHP Eligible (2014)
41BX1396	Burned rock and lithic scatter, campsite	Early Archaic	20–300	0.4 km (0.3 mi) northeast	SWCA recommended avoidance	NRHP Eligible (2011) Designated SAL (2008)
41BX1899	Lithic scatter	Unknown Prehistoric	60–220	0.4 km (0.3 mi) east	UTSA-CAR recommended further testing	NRHP Undetermined (2012)
41BX1953	Lithic scatter	Unknown Prehistoric	–	1 km (0.6 mi) northeast	Geo-Marine Inc. recommended no further work within ROW	NRHP Ineligible within ROW (2013)
41BX2125	Lithic scatter; Historic artifact scatter	Unknown Prehistoric; Early nineteenth to mid-twentieth century	5–110	0.9 km (0.5 mi) northeast	Pape-Dawson recommended no further work	No determination made
41BX2161	Lithic scatter; Historic structure and artifact scatter	Unknown Prehistoric; Late nineteenth to mid-twentieth century	0–120	0.9 km (0.5 mi) south	Pape-Dawson recommended no further work.	No determination made

Table 3. Previously Recorded Archaeological Sites within the Study Area

Site Trinomial	Site Type	Cultural Affiliation	Depth of Deposits (cmbs)	Distance from Project Area	Consultant Recommendation	Eligibility According to the Atlas
41BX2192	Historic limestone foundation	Eighteenth to nineteenth century	10-130	0.7 km (0.4 mi) east	Raba Kistner Environmental, Inc. recommended no further work	NRHP Ineligible (2017)
41BX2236	Lithic scatter; Historic limestone foundation	Unknown Prehistoric	0–45	0.9 km (0.5 mi) south	SWCA recommended deed research	No determination made

The remaining 11 archaeological sites within the Study Area are situated over 91.4 m (300 ft) from the Project Area and will not be impacted by Project activities. Most of the additional sites are prehistoric lithic artifact scatters (41BX293, 41BX1396, 41BX1899, and 41BX1953) or multicomponent artifact scatters (41BX321, 41BX2125, 41BX2161, and 41BX2236). Six of these archaeological sites have been evaluated for listing as SALs and/or NRHP properties, while five remain undetermined or unevaluated (THC 2020). 41BX1396 was determined eligible for NRHP listing and SAL designation in 2008. A portion of the Alamo Acequia (41BX8), a Middle Archaic to Late Prehistoric campsite (41BX264), and a prehistoric lithic artifact scatter (41BX321) are also considered eligible for NRHP listing (THC 2020). 41BX1953 and 41BX2192, meanwhile, are ineligible for NRHP listing within the ROW of previous investigations (THC 2020).

Historic Resources

Of the 79 historic resources located within the Study Area, two are adjacent to the Project Area (**Table 4**; see **Figures 5** and **6**). The Brackenridge Park NRHP District, also designated a COSA Local Historic District and Local Historic Landmark, is located north of the Project Area across US 281. A small extension of the Brackenridge Park COSA Local Historic District overlaps the Project Area to the east and south. A Local Historic Landmark immediately south of the Project Area at 115 W Josephine did not include additional information on the Explorer Map (OHP 2020) but corresponds to the location of Hawthorne Elementary School.

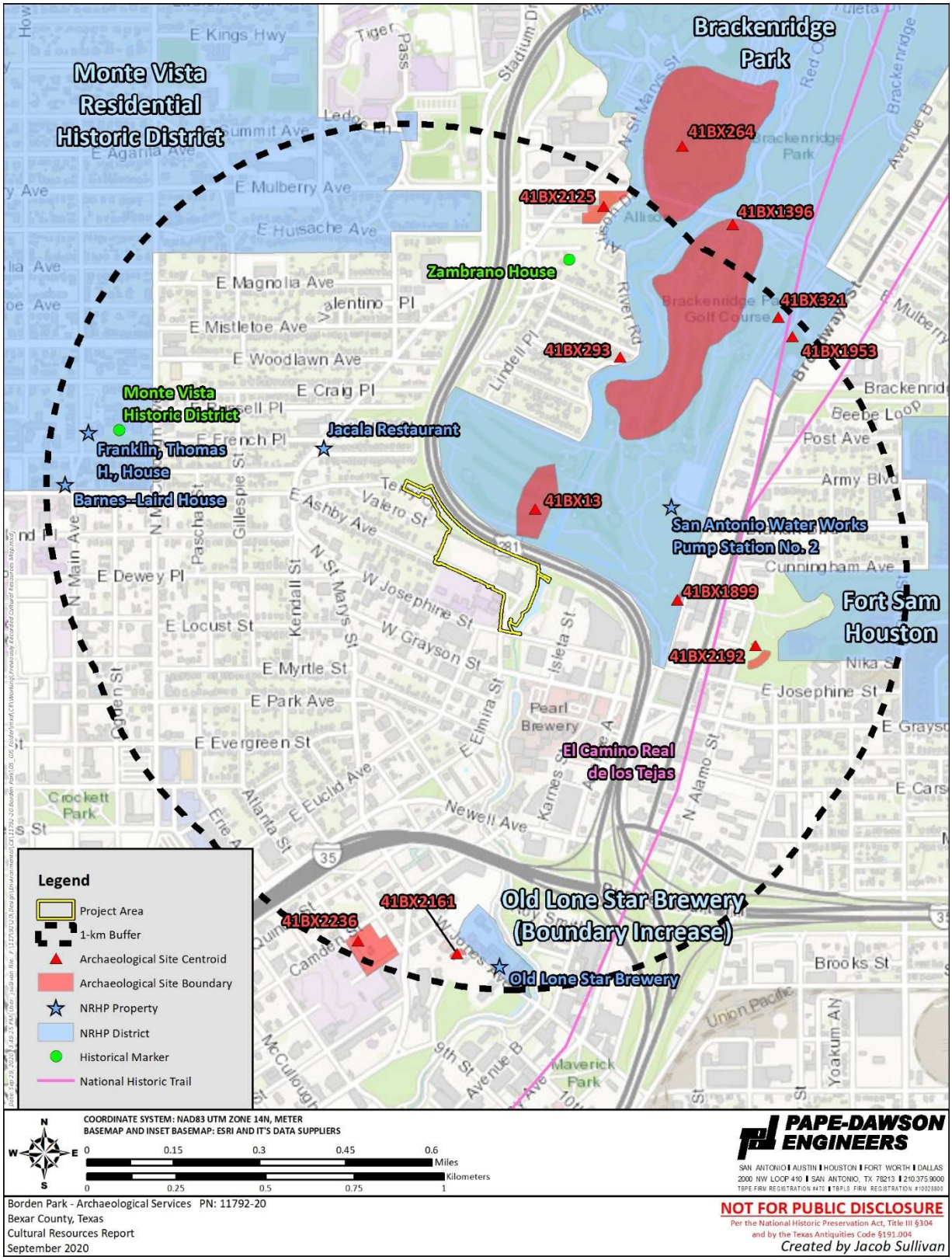

Figure 5. Previously recorded cultural resources within the Study Area.

Table 4. Previously Recorded Historic Resources within Study Area

Resource Name	Designation	Within Project Area
Acequia Madre de Valero - Archaeological Site	COSA Local Historic Landmark	–
Archaeological Site at 310 Park Avenue E	COSA Local Historic Landmark	–
Archaeological Site at 502 Park Avenue E	COSA Local Historic Landmark	–
Archaeological Site at 538 Kings Court	COSA Local Historic Landmark	–
Barnes - Laird House	NRHP Property; COSA Local Historic Landmark	–
Brackenridge Park	NRHP District; COSA Local Historic District; COSA Local Landmark	Adjacent – north and east
Central Catholic High School	COSA Local Historic Landmark	–
Commercial Building at 1530 Alamo Street N	COSA Local Historic Landmark	–
Commercial Building at 250 Grayson Street E	COSA Local Historic Landmark	–
Commercial Building at 307 Pearl Parkway	COSA Local Historic Landmark	–
Commercial Building at 309 Army Boulevard	COSA Local Historic Landmark	–
Commercial Building at 335 Josephine Street W	COSA Local Historic Landmark	–
E French Place District	COSA Local Historic District	–
El Camino Real de los Tejas	NPS National Historic Trail	–
Fort Sam Houston District	NRHP District	–
Gould-Onderdonk House	COSA Local Historic Landmark	–
House at 1526 Alamo Street N	COSA Local Historic Landmark	–
House at 1606 Alamo Street N	COSA Local Historic Landmark	–
House at 1611 Alamo Street N	COSA Local Historic Landmark	–
House at 1613 Alamo Street N	COSA Local Historic Landmark	–
House at 1819 Olive Street N	COSA Local Historic Landmark	–
House at 1820 Olive Street N	COSA Local Historic Landmark	–
House at 215 Park Avenue E	COSA Local Historic Landmark	–
House at 215 Paschal Street	COSA Local Historic Landmark	–
House at 219 Locust Street E	COSA Local Historic Landmark	–
House at 219 Park Avenue E	COSA Local Historic Landmark	–
House at 219 Paschal Street	COSA Local Historic Landmark	–
House at 315 Park Avenue E	COSA Local Historic Landmark	–
House at 318 Park Avenue E	COSA Local Historic Landmark	–
House at 319 Park Avenue E	COSA Local Historic Landmark	–
House at 326 Dewey Place E	COSA Local Historic Landmark	–
House at 332 Park Avenue E	COSA Local Historic Landmark	–
House at 405 Park Avenue E	COSA Local Historic Landmark	–
House at 411 Park Avenue E	COSA Local Historic Landmark	–
House at 422 Park Avenue E	COSA Local Historic Landmark	–
House at 505 Park Avenue E	COSA Local Historic Landmark	–
House at 506 Park Avenue E	COSA Local Historic Landmark	–
House at 509 Park Avenue E	COSA Local Historic Landmark	–
House at 517 Park Avenue E	COSA Local Historic Landmark	–
House at 518 Park Avenue E	COSA Local Historic Landmark	–
House at 523 Park Avenue E	COSA Local Historic Landmark	–
House at 525 Park Avenue E	COSA Local Historic Landmark	–
House at 612 Park Avenue E	COSA Local Historic Landmark	–
House at 707 Quincy E	COSA Local Historic Landmark	–

Table 4. Previously Recorded Historic Resources within Study Area

Resource Name	Designation	Within Project Area
House at 717 Woodlawn E	COSA Local Historic Landmark	–
House at 801 Quincy E	COSA Local Historic Landmark	–
House at 807 Quincy E	COSA Local Historic Landmark	–
House at 811 Quincy E	COSA Local Historic Landmark	–
House at 836 Erie	COSA Local Historic Landmark	–
House at 919 Camden Street	COSA Local Historic Landmark	–
Jacala Restaurant	NRHP Property; COSA Local Historic Landmark	–
Kushner House	COSA Local Historic Landmark	–
Lone Star Brewery	NRHP Property; COSA Local Historic Landmark	–
Monte Vista District	NRHP District; COSA Local Historic District; OTHM	–
Old Lone Star Brewery District	NRHP District; COSA Local Historic District	–
Pearl Brewery Garage	COSA Local Historic Landmark	–
River Road District	COSA Local Historic District	–
Rubiola Store	COSA Local Historic Landmark	–
San Antonio Water Works Pump Station No. 2	NRHP Property	–
Thomas H. Franklin House	NRHP Property; COSA Local Historic Landmark	–
Tobin Hill District	COSA Local Historic District	–
Unnamed Landmark at 115 W Josephine (presumably Hawthorne Elementary School)	COSA Local Historic Landmark	Adjacent – south
Unnamed Landmark at 215 Lowell	COSA Local Historic Landmark	–
Unnamed Landmark at 2801 N Saint Mary's	COSA Local Historic Landmark	–
Unnamed Landmark at 312 Pearl Parkway	COSA Local Historic Landmark	–
Unnamed Landmark at 314 E Ashby Place	COSA Local Historic Landmark	–
Unnamed Landmark at 414 Atlanta Street	COSA Local Historic Landmark	–
Unnamed Landmark at 602 Avenue A	COSA Local Historic Landmark	–
Unnamed Landmark at 706 E Quincy	COSA Local Historic Landmark	–
Unnamed Landmark at 708 E Quincy	COSA Local Historic Landmark	–
Unnamed Landmark at 808 E Quincy	COSA Local Historic Landmark	–
Unnamed Landmark at 823 Camden Street	COSA Local Historic Landmark	–
Unnamed Landmark at 823 Ogden Street	COSA Local Historic Landmark	–
Unnamed Landmark at 901 Camden Street	COSA Local Historic Landmark	–
Unnamed Landmark at 911 Camden Street	COSA Local Historic Landmark	–
Unnamed Landmark at 911 E Quincy	COSA Local Historic Landmark	–
Unnamed Landmark at Atlanta Street	COSA Local Historic Landmark	–
Westfort District	COSA Local Historic District	–
Zambrano House	COSA Local Historic Landmark; RTHL	–

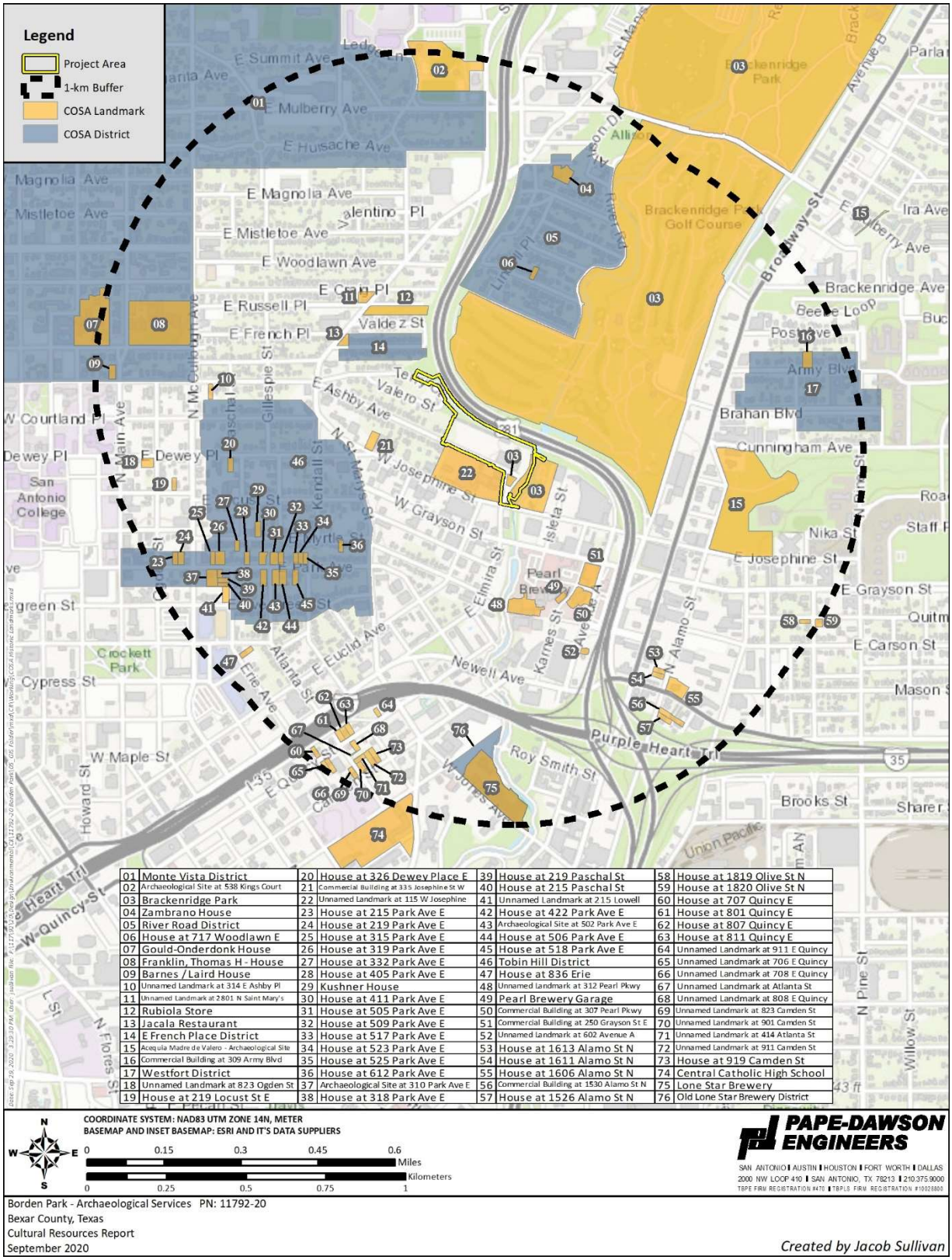

Figure 6. Previously recorded COSA Local Landmarks and Historic Districts within the Study Area.

Most remaining historic resources comprise commercial buildings and residential structures designated as COSA Local Historic Landmarks. Other COSA historic resources within the Study Area include four archaeological sites and three Local Historic Districts (including East French Place, River Road, and Tobin Hill). NRHP properties and districts within the Study Area include the Barnes-Laird House, Fort Sam Houston, the Jacala Restaurant, the Old Lone Star Brewery, the Monte Vista neighborhood, San Antonio Water Works Pump Station Number 2, and the Thomas A. Franklin House. In addition, a portion of El Camino Real de los Tejas National Historic Trail is projected to traverse the eastern half of the Study Area (THC 2020).

Map and Aerial Photograph Review

Pape-Dawson examined recent and historic-age topographic maps (2016, 2013, 1992, 1985, 1975, 1969, and 1959) and aerial photographs (2014, 2012, 2010, 2008, 2004, 1995, 1986, 1973, 1966, 1963 and 1955) available online (Google Earth Pro 2020; NETR Online 2020; USGS 2020b) to identify HHPAs where historic-age structures (45 years of age or older) or historic archaeological sites may exist. In addition, archaeologists sought to identify previous impacts that may have occurred within the Project Area.

The historic map and aerial photograph review indicate the Project Area was developed by 1955. At that time, the western half of the Project Area contained residential development. The eastern half of the Project Area also contained two structures: one at the northeast corner of the Project Area, and another within the southeast corner of the Project Area. By 1973, the structure in the northeastern corner was replaced, and by 1986 the houses had been demolished. The structure in the southeast corner remains standing within the Project Area, and current Google Earth imagery (2020) indicates it is a commercial building with Art Deco influences, suggesting it dates from the 1920s to 1930s. A review of the Sanborn Fire Insurance maps for this area shows that this building was constructed prior to 1951 and served as Borden Company Inc.'s Ice Cream and Dairy Products Factory.

The building contained a bottling area, refrigerated area, and cold storage area. This suggested historic-age archaeological deposits associated with this structure, as well as the other commercial structures and residences present on the earlier maps and aerials, may exist within the Project Area.

Pape-Dawson archaeologists also consulted the COSA OHP's online acequia maps, which indicated there was potential for projected acequia routes to cross the easternmost portion of the Project Area. Three possible routes of the Alamo Acequia are mapped across the San Antonio River from the Project Area (**Figure 7**).

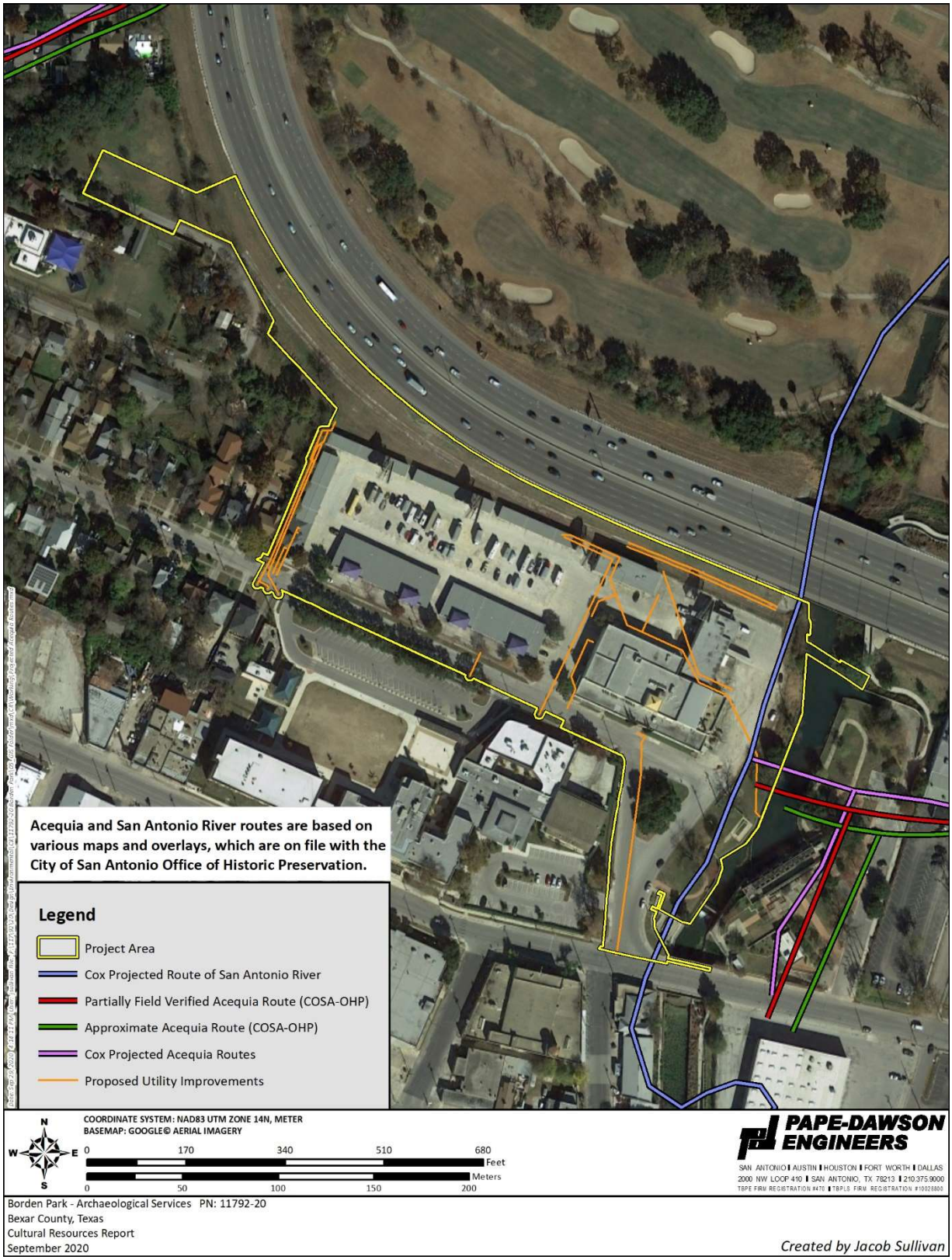

Figure 7. Acequia routes mapped within the Study Area.

Assessment

The results of the cultural resources background study indicate that there is one previously recorded cultural resource within the Project Area—Brackenridge Park. Additionally, site 41BX13 and an unnamed COSA Local Historic Landmark (presumably Hawthorne Elementary School) are adjacent to the Project Area. Furthermore, the Borden Company Inc.'s Ice Cream and Dairy Products Factory, located within the Project Area, has not been previously designated as a historic resource by the THC or COSA OHP (OHP 2020; THC 2020).

As indicated by the background review, the presence of a historic-age standing structure within the Project Area, as well as locations of former structures within the Project Area, suggested there was a high probability that historic-age archaeological deposits associated with these structures were present. In addition, the Project Area's proximity to the San Antonio River suggested there was a high potential for buried prehistoric deposits to be present. This deduction was furthered by the proximity of site 41BX13, a designated SAL and NRHP eligible archaeological resource, recorded 70 m (230 ft) north of the Project Area. Site 41BX13 is located along the same terrace above the San Antonio River as the Project Area, which also suggested the potential for prehistoric deposits within the Project Area even though separated by the modern construction of US 281.

Prior to initiating fieldwork, Pape-Dawson archaeologists utilized the background review to optimize the plotting of trenches in identified prehistoric high probability areas (HPAs) and HHPAs. In addition, Pape-Dawson coordinated with the COSA OHP to address the potential for site 41BX13 to extend in the Project Area. Therefore, improvements within the Project Area which would result in ground disturbing activities were evaluated to ensure that they did not impact significant cultural deposits. Although aerial imagery suggested much of the area has been disturbed through the construction of modern infrastructure and development, a program of archaeological trenching within select new utility installation areas with deep impacts was deemed necessary.

Fieldwork Results

Project Setting and Description

The majority of Project Area consists of a high terrace along the west bank of the San Antonio River, as well as a small portion along the low bank of the east side of the river. The Project Area has been subject to extensive modification and development, as evidenced by the channelization of the San Antonio River within this area, in addition to historic and modern grading, construction, and associated infrastructure

improvements (**Figure 8** to **Figure 17**). Most of the western half of the Project Area is covered by asphalt, concrete foundations and pads, and patches of compact gravel associated with the phases of development within the tract—namely the extant 1933 Borden Factory—and subsequent use as a storage unit rental facility. Several large oak trees border the Project Area, but generally the Project Area is devoid of vegetation. The small portion of the Project Area along the eastern bank of the San Antonio River is directly adjacent to channel improvements and within an irrigated landscape feature along an existing hike-and-bike trail. Overall, these previous landscape modifications compromised the integrity of cultural deposits within the Project Area, as discussed below.

Summary of Work Performed

Pape-Dawson's archaeological investigations consisted of excavation of 15 mechanical backhoe trenches (BHTs) and two column samples (CS) (**Figure 18**). Archaeological investigations initially occurred in September 2019 within the non-permitted portion of the Project Area and resumed in May and August 2020 within both the non-permitted and permitted portions of the Project Area. Within the non-permitted portion of the Project Area, Pape-Dawson excavated a total of seven BHTs and two column samples (**Table 5**). Within permitted portions of the Project Area, Pape-Dawson excavated a total of eight BHTs within proposed sewer, electric, water, and storm water installation areas. Due to the minimal vertical impact of the proposed sidewalk and patio improvements across the Project Area and storm water drains within the TxDOT ROW (less than 0.3 m [1 ft]), Pape-Dawson did not complete archaeological investigations at these locations. Additional mechanical excavation was anticipated at proposed bridge footing locations but could not be conducted due to access limitations with the mechanical equipment, the physical landscape, and an abundance of existing buried utilities. However, excavations in the vicinity of the proposed storm water drains and bridge footings did not indicate the potential for intact archaeological deposits to extend into these areas.

Of the 15 BHTs excavated for the Project, six were positive for cultural materials and one contained a buried cultural feature. In general, BHTs measured approximately 4.4 to 8.8 m (14.4 to 28.9 ft) in length and 0.9 to 1.3 m (2.9 to 4.3 ft) in width, with depths ranging from 1.2 to 3.1 m (3.8 to 10.1 ft). All BHTs were excavated to pre-Holocene deposits or the maximum depth reachable by the equipment, except for BHTs 4 and 12, which encountered modern features.

Figure 8. Overview of the westernmost portion of the Project Area, facing south.

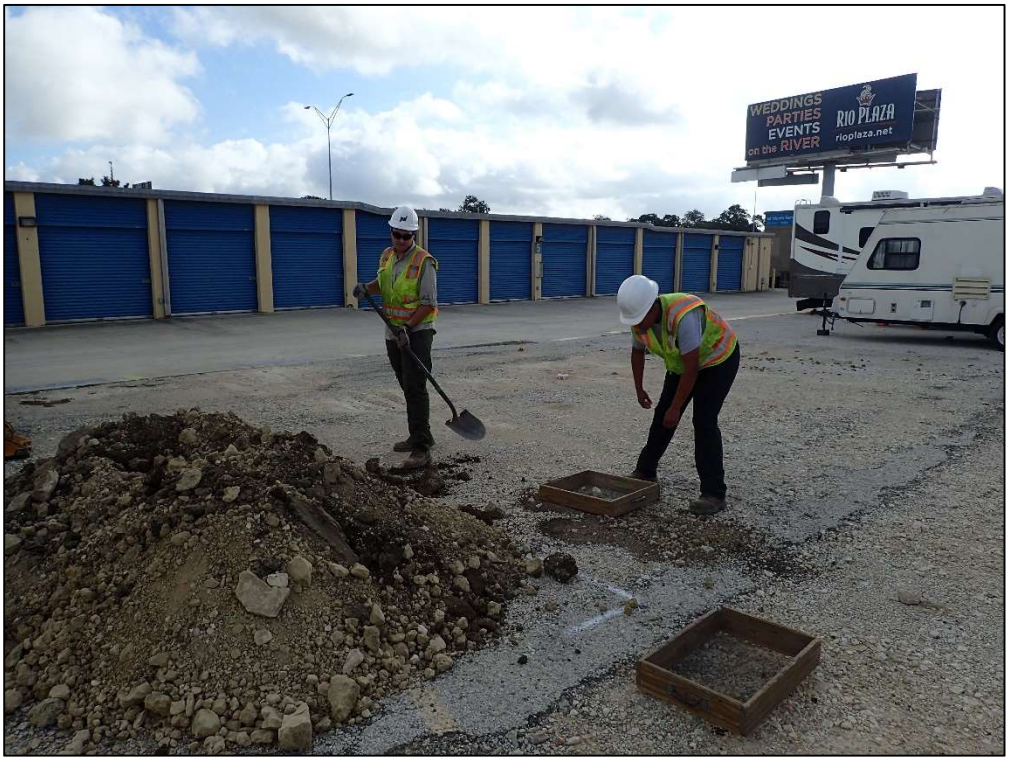

Figure 9. Overview of the westernmost portion of the Project Area prior to demolition of the storage unit facility, facing northeast.

Figure 10. Overview of the central portion of the Project Area, facing northwest.

Figure 11. Overview of the central portion of the Project Area directly west of the Borden Factory building, facing south.

Figure 12. Overview of the eastern portion of the Project Area on the west side of the San Antonio River, facing east.

Figure 13. Overview of the eastern portion of the Project Area along the west bank of the San Antonio River, facing north.

Figure 14. Overview of the northeast corner of the Project Area along the west bank of the San Antonio River and the proposed bridge footing location, facing north-northwest.

Figure 15. Overview of the Project Area along the east bank of the San Antonio River and the proposed bridge footing location, facing north-northeast.

Figure 16. Overview of the Project Area offsite utility installation areas, facing west along East Ashby Place.

Figure 17. Overview of the Project Area offsite utility installation areas, facing south-southwest along River Road and East El Mira.

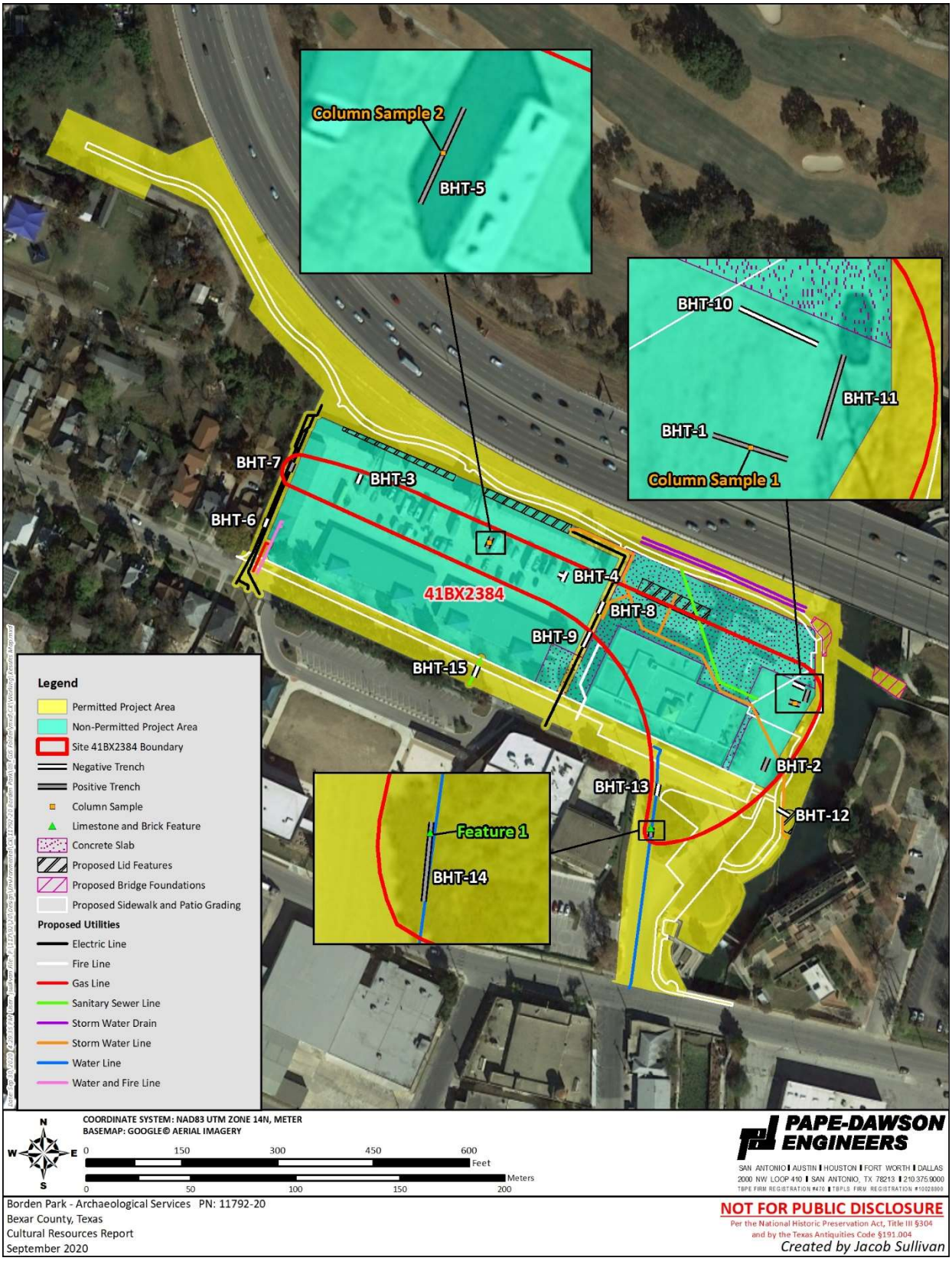

Figure 18. Results map on aerial background with associated proposed improvements and permit areas.

Table 5. BHT Summary Table

Depth of Impact	Proposed Length / Area	Proposed Improvement	No. of BHTs	BHT Nos.	Lead Compliance / Regulatory Nexus
Private Development					
±0.3 m (1 ft)	2 ha (4.9 ac)	Private Development	**7**	BHT 1*, 2*, 3, 4, 5*, 10, 11*; CS 1*, 2*	**UDC** • Within City Limits and RIO 2
Utility - Sanitary Sewer					
±1.5 to 2.1 m (5 to 7 ft)	±14.3 m (47 ft)	8-in Sanitary Sewer Lateral	**1**	BHT 15	**ACT** • COSA ROW
Utility - Electric					
±1.2 to 1.5 m (4 to 5 ft)	±77.7 m (255 ft)	Primary Underground Electric**	**2**	BHT 6, 7*	**ACT** • Partial COSA ROW • Minimal TxDOT ROW • CPS grantee
± 0.9 to 1.2 m (3 to 4 ft)	± 28.7 m (94 ft)	Single Phase URD**			**ACT** • Partial COSA ROW • CPS grantee
± 0.9 to 1.2 m (3 to 4 ft)	±106.7 m (350 ft)	Primary Underground Electric	**2**	BHT 8, 9	**ACT** • Partial COSA ROW • CPS grantee
Utility - Gas					
±1.2 to 1.5 m (4 to 5 ft)	±30.5 m (50 ft)	Gas Utility Trench	**0**	n/a	**ACT** • Partial COSA ROW • CPS grantee
Utility - Water					
±1.2 to 2.4 m (4 to 8 ft)	±137.8 m (452 ft)	Water Main	**2**	BHT 13, 14*	**ACT** • COSA ROW
±1.2 to 1.5 m (4 to 5 ft)	±30.5 m (100 ft)	Water and Fire Line	**0**	n/a	**ACT** • Partial COSA ROW
Sidewalk and Patio					
TBD (spread shallow footing)	n/a	Bridge Foundations	**0**	n/a	**ACT** • Partial COSA and TxDOT ROWs
±0.3 m (1 ft)	n/a	Sidewalk and Patio	**0**	n/a	**ACT** • Partial COSA and TxDOT ROWs

Table 5. BHT Summary Table

Depth of Impact	Proposed Length / Area	Proposed Improvement	No. of BHTs	BHT Nos.	Lead Compliance / Regulatory Nexus
Storm Water					
±0.3 m (1 ft)	±82.3 m (270 ft)	Two 24-in Storm Water Drains	**None**	n/a	**ACT** • TxDOT ROW
±1.8 to 2.4 m (6 to 8 ft)	n/a	Lid Feature	**1**	BHT 12	**ACT** • Eastern-most feature within COSA ROW
±3.1 m (10 ft)	n/a	Tie Pipe to Existing Culvert Box at Lid Feature	**1**	BHT-12	**ACT** • COSA ROW
±1.5 to 2.7 m (5 to 9 ft)	±246.8 m (810 ft)	Lid Feature Connection Line	**0**	n/a	**ACT** • Eastern-most portion within COSA ROW
Total Trenches				**15**	

***Positive for Cultural Material**
****Shared Utility Trench**

In general, disturbances zones and fill episodes were noted throughout the Project Area, extending from the ground surface up to 2.4 m (7.8 ft), but on average ranging from approximately 0.4 to 1 m (1.3 to 3.2 ft). Beneath these disturbances and fills, intact soil strata consisting of truncated A- and B-Horizons were evident. Cultural materials dating from the prehistoric to modern period were also observed. Modern cultural materials were observed from the ground surface to 1.07 m (3.5 ft), specifically within BHT-12 at the proposed lid feature location containing an existing storm water feature. Historic cultural materials were generally observed within disturbance zones extending from 0 to 1 m (3.28 ft), and prehistoric cultural materials were generally observed within natural soils extending from an interface with historic materials at 50 to 70 cmbs (19.7 to 27.6 inbs) to as deep as 130 cmbs (51.2 inbs).

These findings resulted in the documentation of one newly recorded archaeological site (41BX2384). Details of the investigation are presented below in relation to the identification of site 41BX2384. **Appendix B** presents a table of BHT descriptions, including soil data and cultural materials encountered.

Site 41BX2384

Site 41BX2384 is a newly recorded multicomponent site identified across the Project Area during archaeological trenching of the UDC-compliant portion of the Project Area, as well as permitted portions of the Project Area (**Figure 19**). The site consists of a subsurface artifact scatter containing predominantly early to mid-twentieth century domestic and architectural materials and a low density of non-diagnostic prehistoric lithic materials of unknown temporal affiliation. While no intact archaeological deposits were identified at the site, one feature likely associated with a twentieth century embankment or erosion control measure within the relic channel of the San Antonio River was identified during trenching.

Setting and Description

Site 41BX2384 measures approximately 280 m (923 ft) northwest-southeast by 105 m (345 ft) northeast-southwest, with an overall area of 1.1 ha (2.75 ac). The site is situated at an elevation of approximately 199 m (653 ft) above mean sea level on a graded, flat terrace above the San Antonio River. The site is located within a former industrial and commercial complex stretching across the Project Area at 875 East Ashby Place and south along East El Mira Road (see **Figure 8** and **Figure 13**).

Soils encountered at site 41BX2384 are mostly consistent with the Tinn and Frio series, as well as Lewisville silty clay mapped at this location. Soils at the site exhibit significant disturbances within and beyond the A-Horizon. Ground surface visibility (GSV) across the site was generally considered excellent (100 percent), except in areas of impermeable ground cover, such as roadways and lots (0 percent).

Archaeological Excavations

Pape-Dawson archaeologists identified and recorded site 41BX2384 during intensive mechanical excavation and column sampling of the Project Area on September 24 and 25, 2019, as well as May 27, 28 and August 24, 2020. A total of 15 BHTs were excavated in the vicinity of the site; however, only six were positive for cultural materials. Further evidence of the site was identified within two CSs placed adjacent to BHT-1 (CS-1) along the eastern portion of the site and adjacent to BHT-5 (CS-2) within the central portion of the site. As the ground surface and upper strata of the surrounding soil have been extensively disturbed from previous construction episodes, evidence of the prehistoric and historic components of the site were evident from 0 to 70 cmbs (0 to 28 inbs) within disturbed contexts, and prehistoric components of the site were evident from 70 to 100 cmbs (28 to 39 inbs) within natural zones (with the exception of Feature 1). The following provides a detailed description of the BHTs and associated CSs excavated across the Project Area to define the boundaries of 41BX2384.

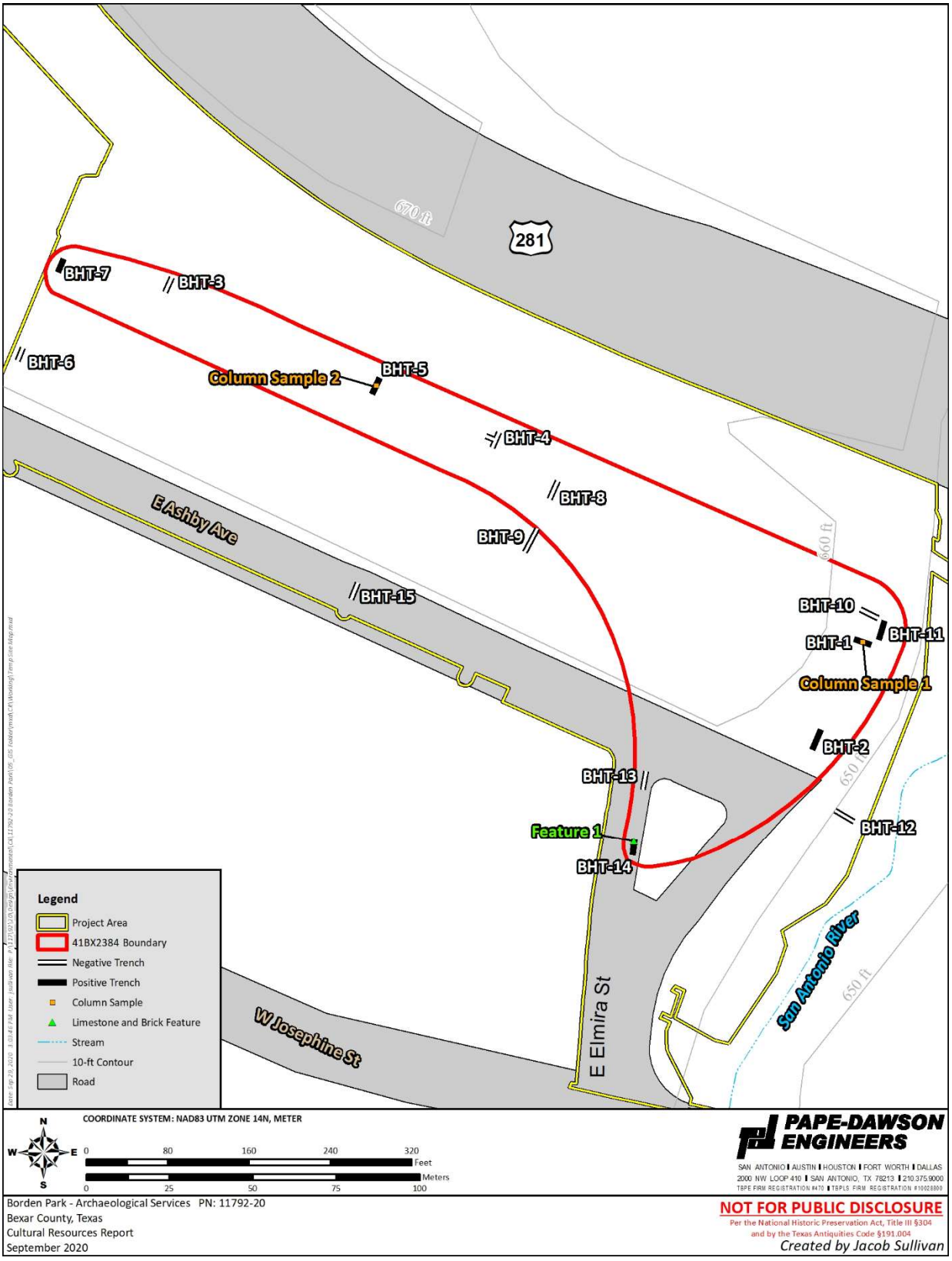

Figure 19. Site map for 41BX2384.

BHT-1

BHT-1, excavated within the mapped Tinn and Frio soils with 0 to 1 percent slopes, exhibited several layers of asphalt and gravel fill extending to a depth of approximately 26 cmbs (10.2 inbs). The fill was underlain by a moderately deep, very dark gray (10YR 3/1) silty clay A-Horizon to a depth of approximately 87 cmbs (34.3 inbs). This stratum was underlain by culturally sterile soils of very dark grayish brown (10YR 3/2) and dark grayish brown (10YR 4/2) silty clay to termination (**Figure 20**). Snail shells were observed from 26 to 200 cmbs (10.2 to 78.7 inbs). No additional inclusions were observed. While no cultural materials were observed within the BHT profile, a CS was excavated to further investigate the presence of potential artifacts due to the BHT location adjacent to the San Antonio River and the its proximity to site 41BX13 (north of the Project Area).

Figure 20. BHT-1 north wall profile, facing northeast.

CS-1

CS-1 was excavated in the north profile of BHT-1 and measured 40 cm (15.7 in) long by 40 cm (15.7 in) wide. The CS was excavated in 10-cm (3.9-in) levels, and the soil from each level was screened through ¼-in wire mesh. The CS was positive for cultural material but yielded low quantities of artifacts. The CS was

excavated to a depth of approximately 70 cmbs (27.6 inbs) before terminating due to sterile soil (**Table 6** and **Figure 21**). Artifacts observed consisted of a biface fragment, tertiary flakes, chert fire-cracked rock (FCR), and faunal bone (**Figure 22** and **Figure 23**). Depths of cultural deposits ranged from 30 to 50 cmbs (11.8 to 19.7 in) within intact soils. No diagnostic artifacts or cultural features were observed within the CS.

Table 6. CS-1 Data.

BHT	Level	Depth (cmbs)	Munsell Color	Soil Texture	Observed Artifacts
1	1	30-40	10YR 3/1 Very dark gray	Silty clay	1 biface fragment, 2 tertiary flakes, 2 faunal bone fragments
	2	40-50	10YR 3/1 Very dark gray	Silty clay	4 tertiary flakes, 2 chert FCR
	3	50-60	10YR 3/1 Very dark gray	Silty clay	-
	4	60-70	10YR 3/1 Very dark gray	Silty clay	-

Figure 21. CS-1, BHT-1 north wall profile, facing north.

Figure 22. CS-1, Level 1 artifacts, 30 to 40 cmbs (11.8 to 15.7 inbs).

Figure 23. CS-1, Level 2 artifacts, 40 to 50 cmbs (15.7 to 19.7 inbs).

BHT-2

BHT-2, excavated within the mapped Tinn and Frio soils with 0 to 1 percent slopes, exhibited several layers of asphalt and gravel fill extending to a depth of approximately 15 cmbs (5.9 inbs). The fill was underlain by a deep, very dark grayish brown (10YR 3/2) silty clay A-Horizon, which extended to the termination of the BHT at a depth of approximately 140 cmbs (55.1 inbs) (**Figure 24**). Very few snail shells were observed throughout the A-Horizon. No additional inclusions were observed. All cultural materials observed within this stratum were observed within a possible posthole (**Figure 25**). The possible posthole exhibited non-diagnostic historic artifacts, but due to its proximity to the former alignment of River Road in this area on the 1906 plat map (see illustration in under Archival Research Results), it is likely associated with signage for the route. These artifacts included one faunal bone fragment (33 cmbs [13 inbs]) and five unidentified ferrous metal fragments (80 to 100 cmbs [31.5 to 39.4 inbs]) (**Figure 26**). In addition, several uncut limestone cobbles were observed throughout the possible posthole.

Figure 24. BHT-2 overview, facing southwest.

Figure 25. Possible posthole in northwest wall profile of BHT-2, facing northwest.

Figure 26. Artifacts observed within possible posthole in northwest wall profile of BHT-2.

BHT-3

BHT-3, excavated within the mapped Lewisville soil series with 0 to 1 percent slopes, exhibited two layers of gravel fill extending to a depth of approximately 40 cmbs (15.7 inbs). The fill was underlain by a relatively shallow, very dark gray (10YR 3/1) clay A-Horizon to a depth of approximately 52 cmbs (20.5 inbs). Few limestone pea gravel and calcium carbonate flecks were present within this stratum. The A-Horizon was underlain by grayish brown (10YR 5/2) clay loam with some mottling of light yellowish-brown (10YR 6/4) clay loam to termination (**Figure 27**). Limestone gravel concentrations increased with greater depth. No additional inclusions were observed. Excavation of BHT-3 terminated at 130 cmbs (51.2 inbs). No artifacts or cultural features were observed while documenting this BHT.

Figure 27. BHT-3 east wall profile, facing east.

BHT-4

The initial excavation location of BHT-4 terminated abruptly upon encountering a continuous slab of concrete approximately 33 cmbs (13 inbs). A second BHT was excavated perpendicular to the initial BHT in an attempt to locate the edge of the slab; however, the backhoe had limited space to maneuver, as

there were several vehicles parked in the vicinity at the time of excavation (**Figure 28**). The concrete slab was overlain entirely by gravel fill. No artifacts or cultural features were observed while documenting this BHT.

Figure 28. BHT-4 east profile, facing north.

BHT-5

BHT-5, excavated within the mapped Tinn and Frio soils with 0 to 1 percent slopes, exhibited a layer of gravel fill extending to a depth of approximately 47 cmbs (18.5 inbs). The fill was underlain by a relatively shallow, very dark gray (10YR 3/1) silty clay A-Horizon to a depth of approximately 82 cmbs (32.3 inbs). This stratum was underlain by culturally sterile soils of brown (10YR 4/3) and dark yellowish-brown (10Y4 4/4) silty clay to termination (**Figure 29**). Observed inclusions consisted of very few limestone pebbles from 47 to 163 cmbs (18.5 to 64.2 inbs) and common calcium carbonate flecks from 163 to 210 cmbs (64.2 to 82.7 inbs). No additional inclusions were observed. Excavation of the BHT terminated at 210 cmbs (82.7 inbs). Artifacts observed during the excavation of BHT-5 and the documentation of the BHT profile included very few red brick fragments, a colorless window glass shard, a wire nail, a charcoal fragment,

an asphalt fragment, and very few slag fragments (**Figure 30**). These artifacts were recovered from the A-Horizon. To further investigate the extent of the cultural deposits, Pape-Dawson archaeologists excavated CS-2 in the BHT wall profile.

Figure 29. BHT-5 overview, facing north.

Figure 30. BHT-5, Zone II artifacts, 47 to 82 cmbs (18.5 to 32.3 inbs).

CS-2

CS-2 was excavated in the west profile of BHT-5 and measured 40 cm (15.7 in) long by 40 cm (15.7 in) wide. The CS was excavated in 10-cm (3.9-in) levels and the soil from each level was screened through ¼-in wire mesh. The CS was excavated to a depth of approximately 107 cmbs (42.1 inbs) before terminating due to sterile soil (**Table 7** and **Figure 31**). The CS was positive for prehistoric and historic cultural material. Artifacts observed consisted of lithic debitage, limestone and chert FCR, charcoal fragments, coal fragments, cut and wire nails, unidentified ferrous metal, a ferrous metal and brass pipe fixture, a paperclip, colorless window glass shards, red tile fragments, a whiteware sherd, and plastic fragments (**Figure 32** to **Figure 37**). Depths of cultural deposits ranged from 47 to 97 cmbs (18.5 to 38.2 inbs). No diagnostic prehistoric artifacts were recovered from the CS. The remaining artifacts date from the late nineteenth century to present but consist mostly of twentieth century materials.

Table 7. CS-2 Data

BHT	Level	Depth (cmbs)	Color	Texture	Artifact
5	1	47-57	10YR 3/1 Very dark gray	Silty clay	1 paperclip, 2 wire nails, 10 unidentified ferrous metal fragments, 1 ferrous metal and brass pipe fitting, 73 red tile fragments, 1 ironstone sherd, 2 plastic fragments
	2	57-67	10YR 3/1 Very dark gray	Silty clay	7 tertiary flakes, 6 limestone FCR, 2 chert FCR, 1 cut nail, 2 wire nails, 2 ferrous wire fragments, 8 unidentified ferrous metal fragments, 1 colorless window glass shard, 1 red tile fragment, 1 ironstone sherd, 2 charcoal fragments, 1 coal fragment
	3	67-77	10YR 3/1 Very dark gray	Silty clay	7 tertiary flakes, 5 limestone FCR, 1 unidentified ferrous metal fragment, 2 colorless window glass shards, 3 coal fragments
	4	77-87	10YR 3/1 Very dark gray	Silty clay	4 tertiary flakes
	5	87-97	10YR 4/3 Brown	Silty clay	8 tertiary flakes, 2 limestone FCR
	6	97-107	10YR 4/3 Brown	Silty clay	-
	7	107-117	10YR 4/3 Brown	Silty clay	-

BHT-6

BHT-6, excavated within the mapped Lewisville soil series with 0 to 1 percent slopes, exhibited three zones of natural soil extending to the termination of the BHT at a depth of approximately 183 cmbs (72 inbs). The shallow A-Horizon consists of very dark grayish brown (10YR 3/2) silty clay to a depth of approximately 17 cmbs (6.7 inbs). The A-Horizon was underlain by dark grayish brown (10YR 4/2) and yellowish-brown (10YR 5/4) clay loam with some mottling of light yellowish-brown (10YR 6/4) clay loam to termination (**Figure 38**). Calcium carbonate fleck and nodule concentrations increased with greater depths. No additional inclusions were observed. No artifacts or cultural features were observed while documenting the BHT.

Figure 31. CS-2, BHT-5 west wall profile, facing west.

Figure 32. CS-2, Level 1 artifacts, 47 to 57 cmbs (18.5 to 22.4 inbs).

Figure 33. CS-2, Level 1 artifacts, 47 to 57 cmbs (18.5 to 22.4 inbs).

Figure 34. CS-2, Level 2 artifacts, 57 to 67 cmbs (22.4 to 26.4 inbs).

Figure 35. CS-2, Level 3 artifacts, 67 to 77 cmbs (26.4 to 30.3 inbs).

Figure 36. CS-2, Level 4 artifacts, 77 to 87 cmbs (30.3 to 34.3 inbs).

Figure 37. CS-2, Level 4 artifacts, 87 to 97 cmbs (34.3 to 38.2 inbs).

Figure 38. BHT-6 southeast wall profile, facing east.

BHT-7

BHT-7, excavated within the mapped Lewisville soil series with 0 to 1 percent slopes, exhibited several layers of gravel fill and clay extending to a depth of approximately 25 cmbs (9.8 inbs). The fill was underlain by a moderately deep mixed zone consisting very dark brown (10YR 2/2) silty clay and angular limestone gravel to a depth of approximately 62 cmbs (24.4 inbs). Beneath the mixed zone, two layers of natural soil consisting of dark brown (10YR 3/3) and yellowish-brown (10YR 5/6) silty clay extended to termination (**Figure 39**). Calcium carbonate fleck and nodule concentrations increased with greater depths. No additional inclusions were observed. Excavation of BHT-7 terminated at approximately 205 cmbs (80.7 inbs). The deepest layer of fill (21 to 25 cmbs [8.3 to 9.8 inbs]) contained common fragments of red brick. The zone of mixed soil underlying the fill contained a butter knife blade, unidentified ferrous metal, a brass pipe fitting, “7-Up green” and colorless bottle glass, a machine-made brick fragment with painted plaster, a blue-and-white-glazed stoneware sherd, a concrete fence post, and a rubber ball. These

observed artifacts appear to date from the early twentieth century to present. No additional artifacts or cultural features were observed while documenting the BHT.

Figure 39. BHT-7 west wall profile, facing west.

BHT-8

BHT-8, excavated within the mapped Tinn and Frio soils with 0 to 1 percent slopes, exhibited one layer of gravel fill extending approximately 23 cmbs (9.1 inbs). The fill was underlain by a shallow, dark grayish brown (10YR 4/2) silty clay A-Horizon to a depth of approximately 36 cmbs (14.2 inbs). The A-Horizon was underlain by two additional natural soil zones of light yellowish-brown (10YR 6/4) silty clay to termination (**Figure 40**). Calcium carbonate fleck and nodule concentrations within these stratums increased with depth. No additional inclusions were observed. Excavation of BHT-8 terminated at 237 cmbs (93.3 inbs). No artifacts or cultural features were observed while documenting this BHT.

Figure 40. BHT-8 west wall profile, facing northwest.

BHT-9

BHT-9, excavated within the mapped Tinn and Frio soils with 0 to 1 percent slopes, exhibited one layer of gravel fill extending to a depth of approximately 30 cmbs (11.8 inbs). The fill was underlain by a shallow, dark grayish brown (10YR 4/2) silty clay A-Horizon to a depth of approximately 49 cmbs (19.3 inbs). The A-Horizon was underlain by two additional natural soil zones of light yellowish-brown (10YR 6/4) silty clay to termination (**Figure 41**). Calcium carbonate fleck and nodule concentrations within these stratums increased with depth. No additional inclusions were observed. Excavation of BHT-9 terminated at 246 cmbs (96.9 inbs). No artifacts or cultural features were observed while documenting this BHT.

Figure 41. **BHT-9 east wall profile, facing east.**

BHT-10

BHT-10, excavated within the mapped Tinn and Frio soils with 0 to 1 percent slopes, exhibited two layers of gravel fill extending to approximately 39 cmbs (15.4 inbs). The fill was underlain by a moderately deep, very dark brown (10YR 2/2) silty clay A-Horizon to a depth of approximately 92 cmbs (36.2 inbs). The A-Horizon was underlain by two additional natural soil zones consisting of yellowish-brown (10YR 5/4) silty clay and cemented limestone gravel to termination (**Figure 42**). Very few calcium carbonate fleck and nodule concentrations were observed within these stratums. The deepest layer encountered within the trench (270 to 290 cmbs [106.3 to 114.2 inbs]) consisted entirely of limestone pebbles and gravel. No additional inclusions were observed. Excavation of BHT-10 terminated at 290 cmbs (114.2 inbs). No artifacts or cultural features were observed while documenting this BHT.

Figure 42. BHT-10 east wall profile, facing east.

BHT-11

BHT-11, excavated within the mapped Tinn and Frio soils with 0 to 1 percent slopes, exhibited two layers of gravel fill extending to a depth of approximately 31 cmbs (12.2 inbs). The fill was underlain by a deep, very dark gray (10YR 3/1) silty clay A-Horizon to a depth of approximately 197 cmbs (77.6 inbs). The A-Horizon was underlain by an additional natural soil zone of yellowish-brown (10YR 5/4) silty clay to termination (**Figure 43**). Very few calcium carbonate fleck and nodule concentrations were observed within these stratums. No additional inclusions were observed. Excavation of BHT-11 terminated at 307 cmbs (120.9 inbs). The BHT was positive for cultural material, consisting of one tertiary flake at 130 cmbs (51.2 inbs). No additional artifacts or cultural features were observed while documenting this BHT.

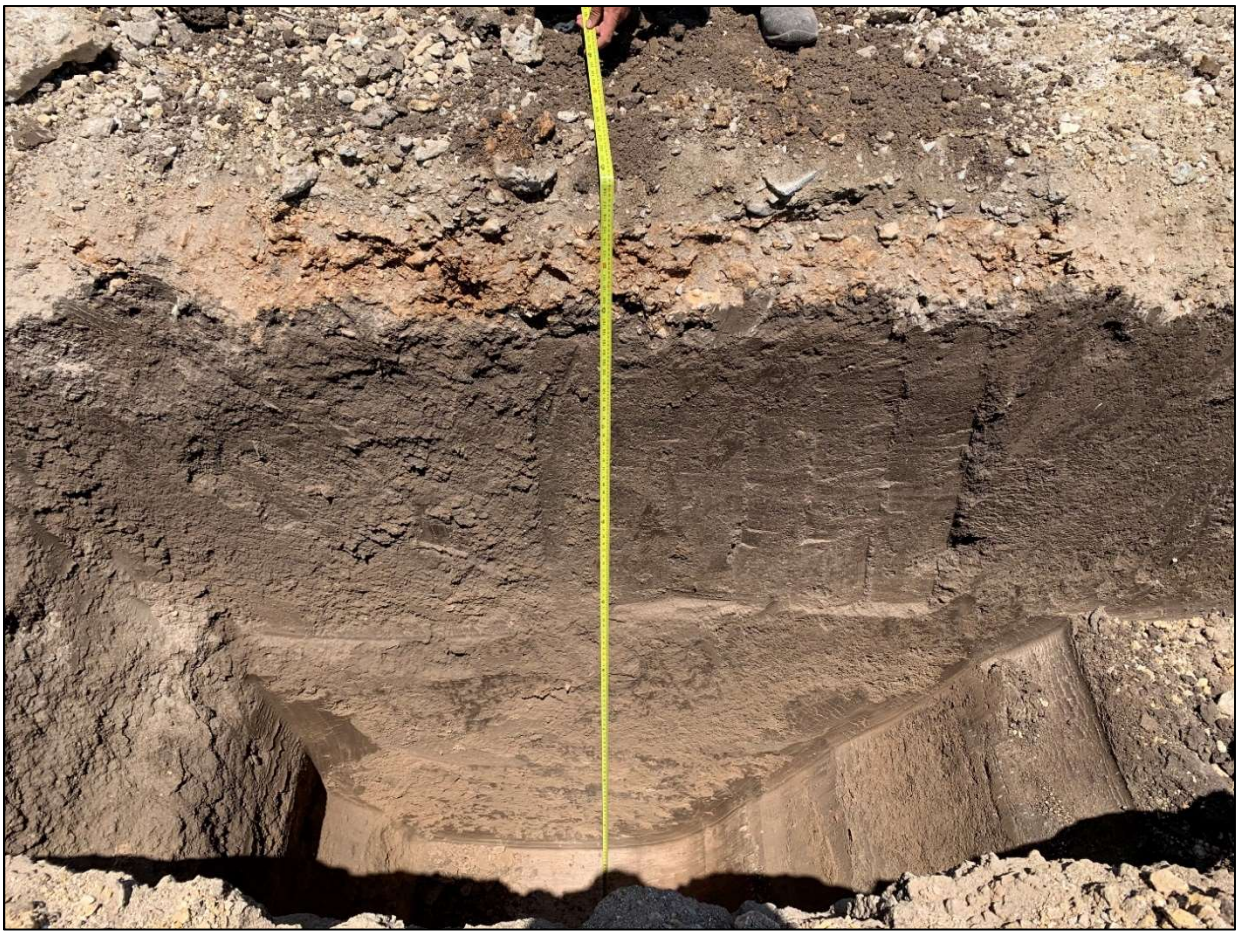

Figure 43. BHT-11 east wall profile, facing east.

BHT-12

BHT-12, excavated within the mapped Tinn and Frio soils with 0 to 1 percent slopes, exhibited two layers of silty clay fill to a depth of approximately 107 cmbs (42.1 inbs). The fill was underlain by a layer of geotextile which was laid atop gravel fill (**Figure 44**). Given the proximity to the San Antonio River, the geotextile and gravel are likely in place to filter stormwater runoff prior to entering the river. To minimize damage to the filter, excavation of this BHT was halted. Following the documentation of the BHT, the torn sections of geotextile were replaced, and the BHT was backfilled. Excavation of BHT-12 terminated at 115 cmbs (45.3 inbs). The only cultural material observed within the BHT were two modern plastic bottles. No artifacts or cultural features were observed while documenting this BHT.

Figure 44. BHT-12 overview, facing northwest.

BHT-13

BHT-13, excavated within the mapped Tinn and Frio soils along East El Mira, exhibited a layer of asphalt extending to a depth of 22 cmbs (9 inbs). The asphalt was underlain by a very dark gray (10YR 3/1) clay loam to a depth of 56 cmbs, (22 inbs), which gradually darkened to a dark brown (10YR 3/3) clay loam with few limestone inclusions to a depth of 144 cmbs (57 inbs). BHT-13 was terminated after a gray (5/1) clay loam was encountered at a depth of 244 cmbs (96 inbs) (**Figure 45**). No artifacts or cultural features were observed while documenting this BHT.

Figure 45. BHT-13 east wall profile, facing east.

BHT-14

BHT-14, excavated within a disturbed context along East El Mira, exhibited a layer of asphalt and road base extending to 30 cmbs (11.8 inbs). This layer was underlain by brown (10YR 3/3) clay loam exhibiting common limestone and calcium carbonate inclusions (with pockets of denser inclusions) from 54 to 130 cmbs (21 to 51 inbs) along a sloping boundary (**Figure 46**). Beneath the sloping boundary at 130 cmbs (51 inbs), a layer of limestone cobbles and light-yellow brick approximately 10 to 20 cm (4 to 8 in) thick (Feature 1) was visible to a depth of 247 cmbs (97 inbs). The thickness of the limestone and brick seam increased at greater depths and is estimated to be around 40 cm (16 in) at the base of the BHT (**Figure 47** to **Figure 48**). Beneath the slope, a layer of gray (10YR 8/2) clay loam extended to another sloped boundary between 155 and 247 cmbs (61 to 97 inbs), underlain by white (10YR 8/1) marl to a terminal depth of 250 cmbs (98 inbs).

Figure 46. BHT-14 west wall profile showing slope of Feature 1 bricks and limestone below fill episode, facing west.

Figure 47. BHT-14 east wall profile and base of trench at approximately 130 cmbs (51.2 inbs) illustrating the top of Feature 1, facing east.

Figure 48. BHT-14 base of trench at approximately 250 cmbs (98.4 inbs) illustrating Feature 1, facing west.

The layer of limestone cobbles and bricks following the contour of the subsoil sloping southward was identified as Feature 1. No evidence of mortar was observed within the brick or limestone. The soils above the layer of bricks consisted of fill with some red Alamo brick fragments, as well as several flat window glass shards, faunal bone, ceramic utility pipes, and concrete post molds. Feature 1 is likely associated with the old channel of the San Antonio River, as it is located between the high bank and the water's edge as depicted on a 1924 plat map and follows the general contour of the subsoil (likely representing an embankment). The feature also demonstrates evidence of a massive fill episode corresponding to the channelization of the river at this location. Feature 1 likely represents an embankment or erosion control measure from the historic period and predates channelization. From the orientation of the feature, it does not appear to extend beyond the BHT within the proposed alignment of the waterline. As the feature lacks substantive construction and associated artifacts, it does not represent a significant archaeological deposit.

BHT-15

BHT-15, excavated within a disturbed context along East Ashby Place, exhibited a layer of asphalt extending to 8 cmbs (3.1 inbs) underlain by gravel fill extending to a depth of approximately 26 cmbs (10.2

inbs) (**Figure 49**). Below the modern road base was a zone of irregular construction fill consisting of brown (10YR 5/4) clay loam with black (10YR 2/1) clay and limestone inclusions to a depth of 122 cmbs (48 inbs). The BHT was further excavated to a depth of 2.3 m (7.5 ft), at which point a concrete utility box was encountered within a black (10YR 2/1) silty clay loam. No artifacts or cultural features were observed while documenting this BHT (**Figure 50**).

Cultural Materials Observed

Artifacts

BHTs 2, 5, 7, 13, and 14 were positive for historic materials, while BHT-11 was positive for prehistoric materials, and CSs 1 and 2 were positive for both historic and prehistoric cultural materials. Encountered materials consisted of a low density of mostly twentieth century domestic and architectural refuse. Domestic materials include fragments of green, solarized, and colorless vessel glass; a stainless-steel butter knife blade; faunal bone; blue and white stoneware; a rubber ball, a paperclip, refined white earthenware; coal; charcoal; and plastic. Architectural materials include fragments of unidentifiable ferrous metal; machine-made red and light-yellow brick fragments; limestone cobbles; colorless window glass; wire and cut nails; metal slag; a brass pipe fitting; ceramic utility pipe, and red ceramic tile. Prehistoric materials include a very low density of limestone and chert FCR, lithic debitage, faunal bone, and a single biface fragment. However, a paucity of diagnostic materials, lack of stratified deposits, overall disturbances, and absence of diagnostic materials in association with archaeological features, indicates these deposits do not constitute significant archaeological deposits.

Features

Feature 1, identified within BHT-14 in anticipation of the proposed waterline at this location, likely represents an embankment or erosion control measure associated with the old channel of the San Antonio River. From the orientation of the feature, it does not likely extend beyond BHT-14 within the proposed alignment of the waterline. As the feature lacks substantive construction and associated artifacts, it does not represent a significant archaeological deposit. As the maximum depth of impact for the proposed water line at the feature location is 2.4 m (8 ft) below surface, and the BHT was excavated to this depth, construction monitoring is not recommended at this location, as no further impact is anticipated.

Figure 49. Overview of BHT-15 location, facing south.

Figure 50. BHT-15 east wall profile, facing east.

Archival Research

Archival research reflects the transition of land use in the Project Area from the mid-nineteenth century to present. Situated along the western bank of the San Antonio River near the southern edge of Brackenridge Park, the Project Area encompasses land used primarily for agricultural purposes during the Spanish Colonial, Mexican and Texas Republic, and Early Statehood periods. Proximity to one of San Antonio's major *acequias*, the Upper Labor (Acequia de Labores de Arriba)—built 1776 to 1778—made the irrigated land highly valuable for growing crops. After the initial parceling of land following completion of the *acequia*, the area remained largely agricultural and undeveloped for almost another century. The tract of land occupied by the Project was first partitioned from the original land grant in 1856, when Jose and Pilar Roxo conveyed 40.5 ha (100 ac) to Joseph Ulrich, who then sold 5.9 ha (14⅔ ac) of the property (containing the present-day Project Area) to Frederick Radcleff a year later (Bexar County Deed Records [BCDR] 1:391, December 27, 1856; P1:327, April 18, 1857). The land changed ownership once more, to Jacob Renz in 1861, before it became the property of Jacob Schoomann in 1867 (BCDR S2: 24, April 24, 1861; U2:78, January 28, 1867) (spelling of the "Schoomann" surname varies among sources and includes: Schoomann, Schooman, Schomann, Schumann, and Schuman). The property remained in the Schoomann family for the next century, as was conveyed between family members as generations passed (BCDR 234:415, October 3, 1904; 253:155, May 16, 1906; 253:156, May 16, 1906; 611:402, September 14, 1920; 1989:243, September 1, 1943; 3271:447, January 5, 1953).

According to the United States Federal Census (UFC), Jacob and Elizabeth Schoomann emigrated from Germany in 1855 and resided on Rock Quarry Road (now St. Mary's Street)—on their purchased tract but likely not within the Project Area—with their children by 1880 (UFC 1880). The 1900 census shows Jacob Schoomann and his family were living on Jones Avenue (present-day St. Mary's Street was also called Jones Avenue), presumably at the same location as in 1880 (UFC 1900). The 1880 and 1900 censuses document Jacob Schoomann's occupation as a gardener. Early Sanborn maps do not depict buildings developed in the vicinity of the Schoomann tract.

In early 1906, the Schoomann tract was further divided and platted (**Figure 51**), and the land occupied by the Project Area became County Block 3053 of Schoomann Subdivision No. 3 (BCDR Plat Book 105:82). Jules A. Appler's ca. 1900 *Map of San Antonio, Texas and Suburbs* (**Figure 52**) indicates that East Ashby Place was paved by this point. This map, as well as the 1924 Sanborn Fire Insurance Company map (**Figure 53**), show the street directly north of East Ashby Place (now Terry Court) was named Schoomann Place.

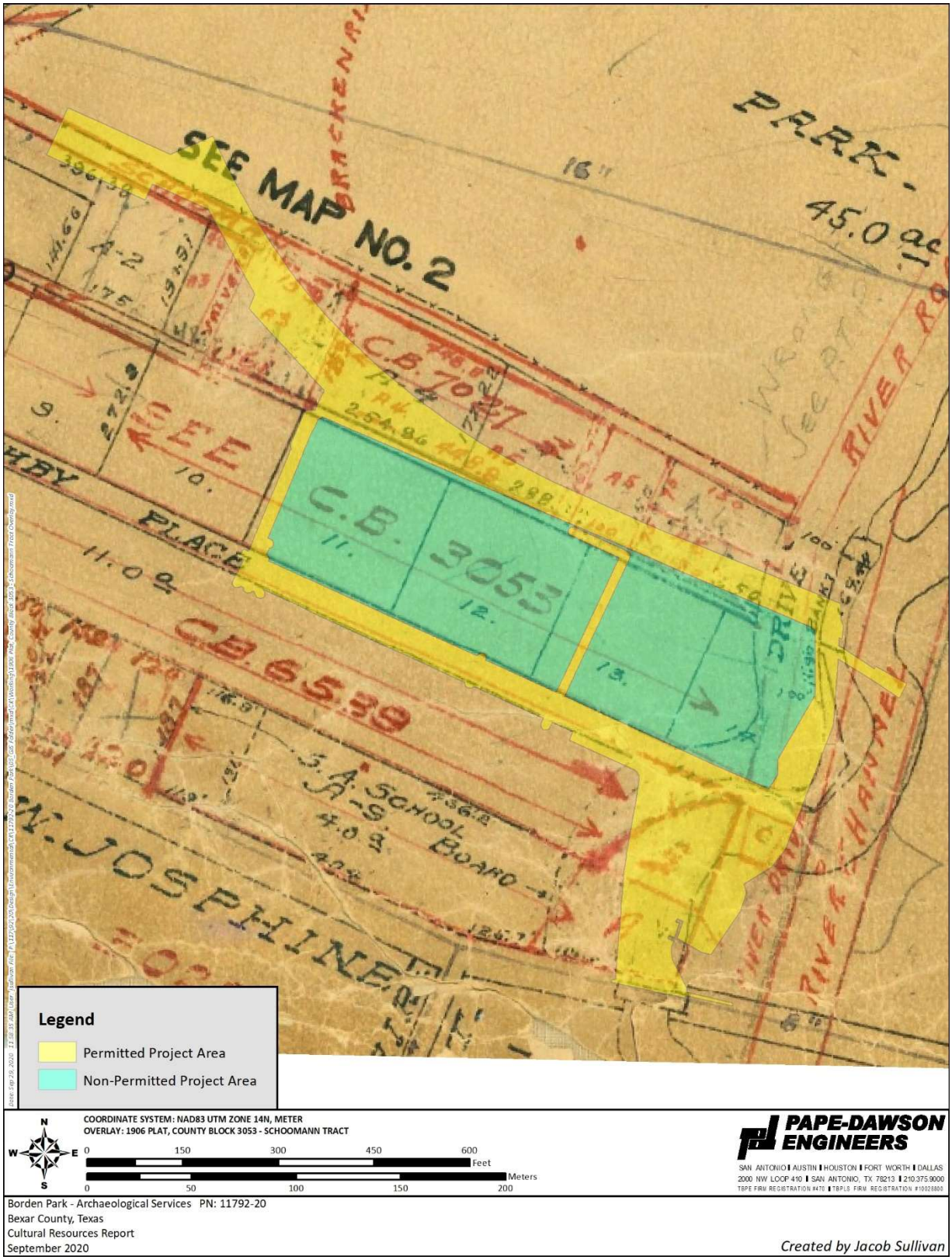

Figure 51. 1906 Plat, County Block 3053, Schooman Subdivision No. 3.

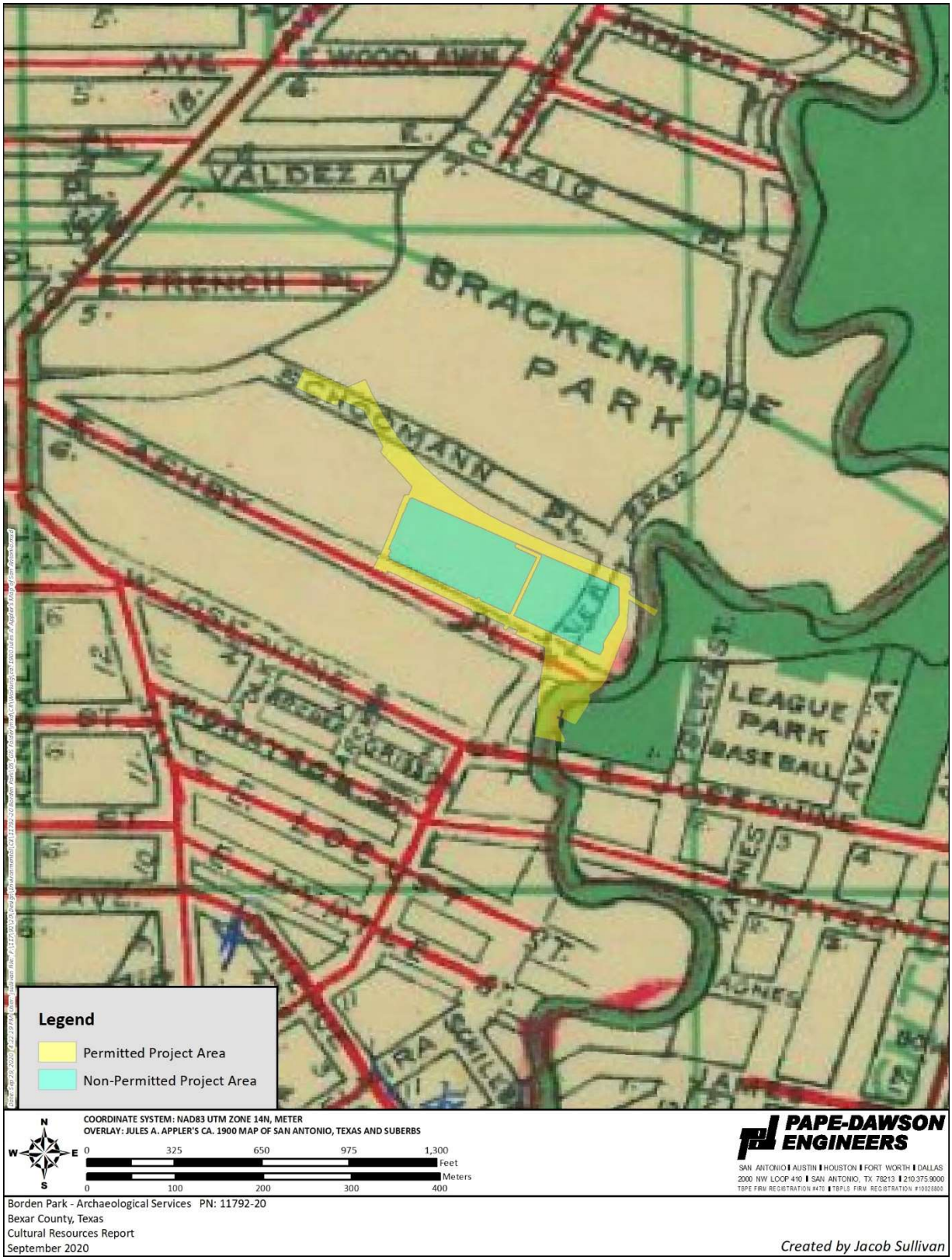

Figure 52. Jules A. Appler's ca. 1900 Map of San Antonio, Texas and Suburbs.

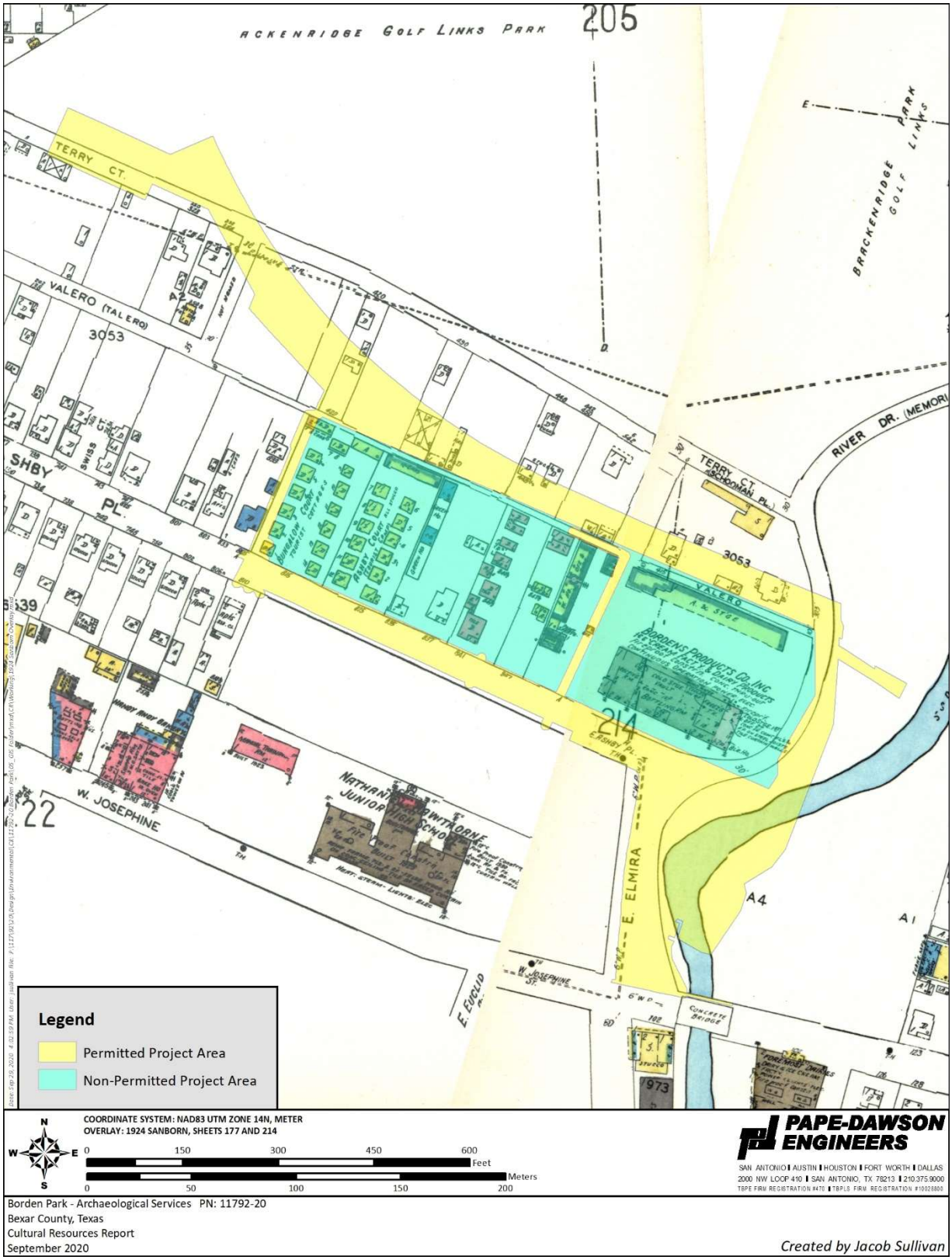

Figure 53. 1924 Sanborn Fire Insurance Company Map of San Antonio, Sheets 177 and 214.

City directories and census data reveal numerous members of the Schoomann family lived together in the same house at 1416 Jones Avenue. Other extended family also lived in the vicinity, many of them on East Ashby Place, further west of the Project Area lots. However, according to Sanborn map and city directory research, John and Emma Schoomann resided at 837 East Ashby Place by the early 1920s, on the same parcel as the Project Area—west of the extant Borden Ice Cream Factory building—and operated Ashby Floral Nursery on the property (see **Figure 53**).

The character of the Project Area became more industrial in 1933, when the Borden Ice Cream Plant was constructed at 875 East Ashby Place (Bexar County Appraisal District). Well-known architect Atlee B. Ayres likely designed the poured-in-place concrete building, which included a bottling area, a refrigerated area, and a cold storage area. The building features distinct Art Deco stylistic architectural influences, reflecting popular trends in architecture at the time. Borden enlarged the factory in 1953, taking out a full-page ad (**Figure 54**) in the *San Antonio Express* to advertise the expansion that shows a photograph of the building at the time (Domel 2014). It remains unknown if a familial tie existed between the Schoomann's and the Borden company. The Project Area changed significantly in the 1970s, when the McAllister Freeway was built directly adjacent to the Project, visually and physically severing the Borden plant and other buildings on East Ashby Place from the area to the north (**Figure 55**).

The Project Area finally transferred out of Schoomann ownership in 1974, when Rufus Hodges and Elsie Schoomann Hodges sold the property to Borden Inc. (BCDR 7381:189, 1974). The facility continued to operate as a dairy production and distribution center until the 1990s. By that point, the Borden factory functioned as a storage facility, and production of all dairy products had ceased. The only known use for the building interior throughout the twenty-first century is office space for the storage facility.

Figure 54. 1953 advertisement for Borden in the San Antonio Express announcing the plant expansion.

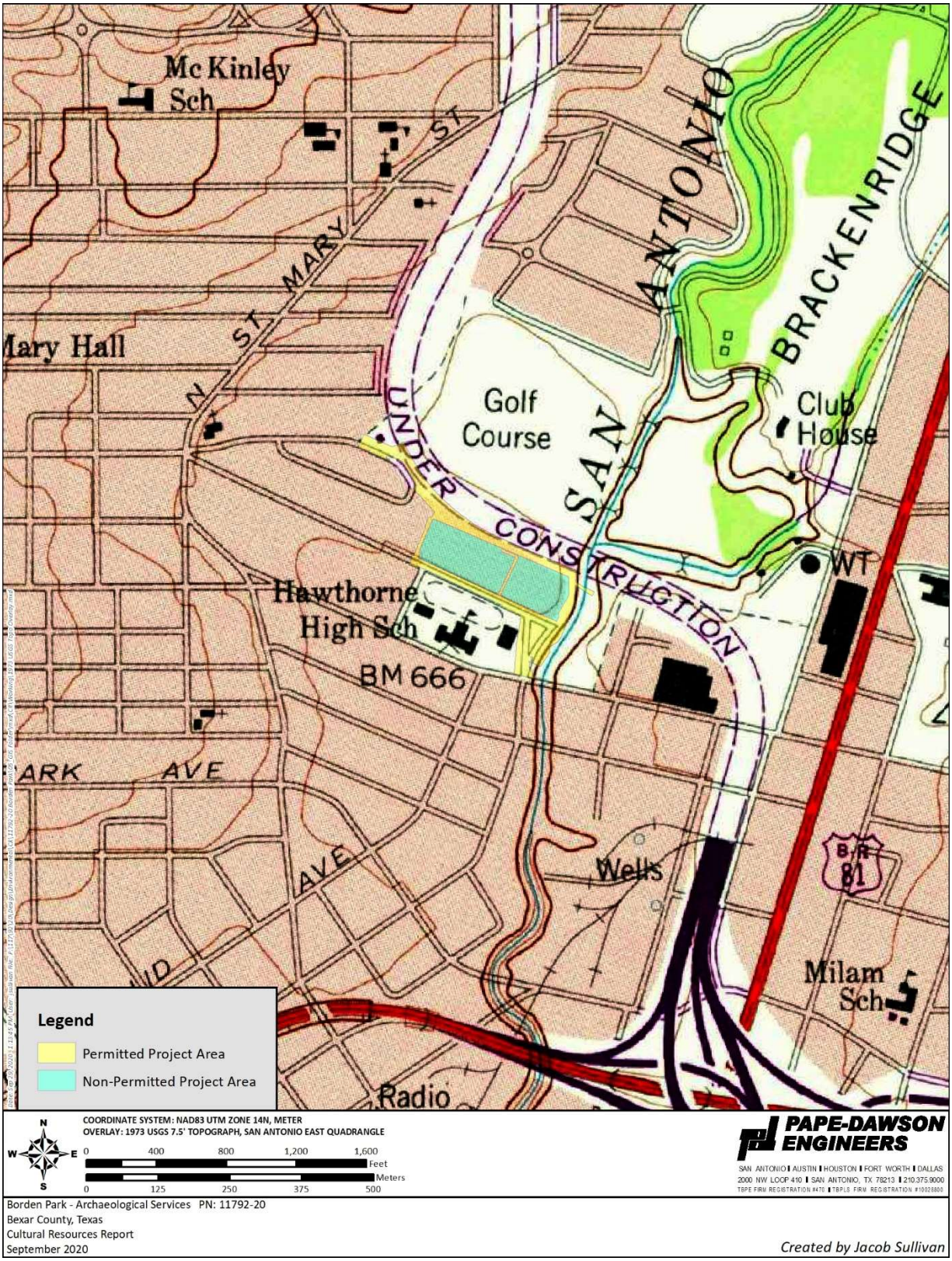

Figure 55. 1973 USGS topographic map of east San Antonio.

Summary

Field investigations resulted in the documentation of one newly recorded archaeological site (41BX2384). Site 41BX2384 is a multicomponent site consisting of a subsurface artifact scatter containing predominantly early to mid-twentieth century domestic and architectural materials, as well as limited prehistoric lithic materials of unknown temporal affiliation. Artifacts related to site 41BX2384 were observed in six BHTs and two CSs excavated across the Project Area. While no intact archaeological deposits were identified, one feature likely associated with a twentieth century embankment or erosion control measure within the relic channel of the San Antonio River was identified. In addition, no diagnostic artifacts were recovered that would link cultural materials observed within the Project Area to 41BX13, a nearby SAL- and NRHP-eligible archaeological site.

The historic artifact scatter contained within site 41BX2384 is likely associated with the Schooman family, who lived within the Project Area during the early to mid-twentieth century. Research indicates that the Schooman family was not significant to local or regional development of the area. Given the paucity of diagnostic materials and absence of stratified deposits, overall disturbances, and lack of diagnostic artifacts associated with a single intact feature, site 41BX2384 is unlikely to yield significant information regarding the historic or prehistoric occupation of the area. Pape-Dawson recommends site 41BX2384 be considered not eligible for SAL/NRHP designation within the Project Area.

CHAPTER 6: SUMMARY AND RECOMMENDATIONS

Embrey Partners retained Pape-Dawson to conduct archaeological investigations for the proposed Borden Park Development Project in San Antonio, Bexar County, Texas. The Project involves the development of an approximately 2.06-ha (5.1-ac) tract of privately-owned land and offsite improvements located at 875 East Ashby Place. The Project will consist of existing building demolition and restoration, new building construction, new utility installation, sidewalk and patio grading and excavation, footpath bridge foundations, and conversion of existing storm water drainage improvements adjacent to the San Antonio River. A historic-age building that once served as the Borden Company Inc.'s Ice Cream and Dairy Products Factory stands within the southeastern corner of the property. This building will not be impacted by the development. Based on the proposed construction plans, depths of impact will vary across the Project Area from 0.3 to 3.1 m (1 to 10 ft) below current ground surface. The Project Area totals 4.1 ha (10.2 ac), consisting of 2 ha (4.9 ac) of private development and 2.1 ha (5.3 ac) of development with an ACT regulatory nexus.

The Project requires compliance with the Historic Preservation and Urban Design Section of the UDC (Article 6 § 35-630 Designated Archaeological Sites to 35-634 Cemeteries), as well as compliance with the ACT for associated utility installation within COSA ROW or TxDOT ROW and utility easements granted to CPS. The total Project Area requiring compliance with the ACT is 5.3 ac (2.1 ha) in size. Archaeological investigation of the Project Area occurred in September 2019, and further UDC- and ACT-compliant investigation occurred in May and August 2020. A total of 15 BHTs and two CSs were excavated during the investigation. The survey investigation resulted in the documentation of one newly recorded archaeological site (41BX2384).

Site 41BX2384 is a multicomponent site consisting of a subsurface artifact scatter containing predominantly early to mid-twentieth century domestic and architectural materials and a low density of non-diagnostic prehistoric lithic materials of unknown temporal affiliation. While no intact archaeological deposits were identified, one feature likely associated with a twentieth century embankment or erosion control measure within the relic channel of the San Antonio River was identified during trenching at the site. In addition, no diagnostic artifacts were recovered that would link cultural materials observed within the Project Area to 41BX13, a nearby SAL- and NRHP-eligible archaeological site. The historic component of site 41BX2384 is likely associated with the Schooman family, who lived within the Project Area during the early to mid-twentieth century. Research indicates that the Schooman family was not significant to

local or regional development of the area. Given the paucity of diagnostic materials and absence of stratified deposits, overall disturbances, and lack of diagnostic artifacts associated with a single intact feature, site 41BX2384 is unlikely to yield significant information regarding the historic or prehistoric occupation of the area. Pape-Dawson recommends site 41BX2384 be considered not eligible for SAL/NRHP designation within the Project Area.

Based on the results of these investigations, no significant archaeological sites will be impacted by the Project, and Pape-Dawson recommends no further work within the Project Area, as currently defined. However, if undiscovered archaeological deposits or human remains are encountered during construction, it is recommended that all work in the vicinity should cease and that the discovery be evaluated by a qualified archaeologist who can provide guidance on how to proceed in accordance with applicable municipal and/or state regulations.

Materials collected as part of the UDC-compliant investigation will be returned to the landowner or discarded at the landowner's discretion following the conclusion of the consultation process. Materials collected as part of the ACT-compliant investigation will be selectively curated in coordination with the THC following completion of the final report. All records generated during the Project will be curated at the UTSA-CAR in accordance with THC requirements for State Held-In-Trust collections.

REFERENCES CITED

Appler, Jules

1902 Jules A. Appler's Classified Business Directory of the City of San Antonio 1903-1904.

Bexar County Census Records

Var. United States Department of Commerce, Bureau of the Census. Ancestry online, accessed February 14, 2020.

Bexar County Deed Records

1847- Various volumes. Bexar County Clerk's Office. https://bexar.tx.publicsearch.us/. Accessed 2020.

Black, Steve L.

1989 South Texas Plains. In *From the Gulf to the Rio Grande: Human Adaptation in Central, South, and Lower Pecos Texas*, edited by T.R. Hester, S.L. Black, D.G. Steele, B.W. Olive, A.A. Fox, K.J. Reinhard, and L.C. Bement, pp. 38-62. The University of Texas at San Antonio Center for Archeological Research and the Arkansas Archeological Survey, Fayetteville.

Black, Steve and Al J. McGraw

1985 *Panther Springs Creek Site: Cultural Change and Continuity Within the Upper Salado Creek Watershed, South-Central Texas*. Archaeological Survey Report, No. 100. The University of Texas at San Antonio Center for Archeological Research, San Antonio.

Black, Steve, Kevin Jolly, Charles D. Frederick, Jason R. Lucas, James W. Karbula, Paul T. Takac, and Daniel R. Potter

1998 *Archeology Along the Wurzbach Parkway, Module 3: Investigation and Experimentation at the Higgins Site (41BX184)*. Vol 2. Studies in Archeology 27. The University of Texas at Austin Texas Archeological Research Laboratory, Austin.

Bousman, C.B., B.W. Baker, and A.C. Kerr

2004 Paleoindian Archeology in Texas. In *The Prehistory of Texas*, edited by T.K. Perttula, pp. 15-99. Texas A&M University Press, College Station.

Caldwell, Laura

2010 "Madero, Francisco Indalecio," *Handbook of Texas Online*, https://www.tshaonline.org /handbook/online/articles/hds02. Uploaded on June 15, 2010. Published by the Texas State Historical Association. Accessed 2020.

Campbell, T.N.

1977 *Ethnic Identities of Extinct Coahuiltecan Populations: Case of the Juanca Indians.* The Pearce-Sellards Series 26. Texas Memorial Museum, Austin.

Clark, John, Adan Benavides, Dan Scurlock, and Dana Isham

1975 *National Register of Historic Places Inventory Nomination Form, Mission Parkway.* Prepared by Texas Historical Commission, State Archeologist's Office, Austin.

Collins, Michael B.

1995 Forty Years of Archeology in Central Texas. In *Bulletin of the Texas Archeological Society* 66: 361-400.

de la Teja, J.F.

1995 *San Antonio De Bexar: A Community on New Spain's Northern Frontier*. University of New Mexico Press, Albuquerque.

Dockall, J.E., D.K. Boyd, and L.E. Kittrell

2006 *Geoarcheological and Historical Investigations in the Comal Springs Area, LCRA Clear Springs Autotransformer Project, Comal County, Texas*. Investigation No. 149. Antiquities Permit No. 3850. Prewitt & Associates, Inc., Austin.

Domel, Julie

2014, November 20). 1933 Ode to Area Dairy Industry. *San Antonio Express.* https://blog.mysanantonio.com/vault/2014/11/1933-ode-to-area-dairy-industry/

ESRI

2020 USGS Historical Topographic Map Explorer. http://historicalmaps.arcgis.com/usgs/index.html

Fehrenbach, T.R.

2010 "San Antonio, TX," *Handbook of Texas Online*, https://www.tshaonline.org /handbook/online/articles/hds02. Uploaded on June 15, 2010. Modified on June 30, 2016. Published by the Texas State Historical Association. Accessed February 14, 2020.

Green, David P.

2007 *Place Names of San Antonio: Plus Bexar and Surrounding Counties.* Maverick Publishing Company, San Antonio.

Hester, T.R.

1978 *Early Human Occupation in South Central and Southwestern Texas: Preliminary Papers on the Baker Cave and St. Mary's Hall sites*. The University of Texas at San Antonio Center for Archaeological Research, San Antonio.

Long, C.

2010 "Bexar County," *Handbook of Texas Online,* https://tshaonline.org/handbook/online/articles/hcb07. Uploaded on June 12, 2010. Modified on February 17, 2016. Published by the Texas State Historical Association. Accessed February 14, 2020.

Majewski, Theresita, and Michael J. O'Brien

1987 The Use and Misuse of Nineteenth-Century English and American Ceramics in Archaeological Analysis. *Advances in Archaeological Method and Theory* 11:97-209.

McNatt, L., C. Beceiro, M.D. Freeman, S.A. Tomka, P. Schuchert, and C.G. Ward

2000 *Archeological Survey and History of Government Canyon State Natural Area, Bexar County, Texas*. Antiquities Permit No. 1669. Cultural Resources Program, Texas Parks and Wildlife Department, Austin.

Mercado-Allinger, P.A., N.A. Kenmotsu, and T.K. Perttulla

1996 *Archeology in the Central and Southern Planning Region, Texas: A Planning Document*. Office of the State Archeologist, Special Report 35 and the Department of Antiquities Protection Cultural Resource Management Report 7. Texas Historical Commission, Austin.

Morrison and Fourmy

1897 Morrison and Fourmy's San Antonio City Directory.

Nationwide Environmental Title Research Online (NETR Online)

2020 *Aerial Imagery of San Antonio, Texas 1955, 1963, 1966, 1973, 1986, 1995, 2004, 2010, and 2012*. http://www.historicaerials.com/. Accessed January 22, 2020.

Prewitt, E.R.

1981 Cultural Chronology in Central Texas. *Bulletin of the Texas Archeological Society* 52: 65-89.

Rumsey, David and Meredith Williams

2016 Historical Maps in GIS. Electronic document. http://www.davidrumsey.com/gis/ch01.pdf. Accessed 2020.

San Antonio City Directories

Var. U.S. City Directories, 1822-1995, online database. HeritageQuest online; accessed January 22, 2020.

Spell, Lota M.
1962 The Grant and First Survey of the City of San Antonio (translation). *The Southwestern Historical Quarterly*, Vol. LXVI, No. 1.

Tennis, C.L.
1996 *Archaic land use of upper Leon Creek terraces: Archeological testing in northern Bexar County, Texas*. Archeological Survey Report No. 234. The University of Texas at San Antonio Center for Archaeological Research, San Antonio.

Thoms, A.V., and R. D. Mandel (editors)
2007 *Archaeological and Paleoecological Investigations at the Richard Beene Site, South-Central Texas*. Technical Report Series No. 8. 2 Vols. Center for Ecological Archaeology, Texas A&M University, College Station.

Turner, E. S. and T. R. Hester
1999 *A Field Guide to Stone Artifacts of Texas Indians*. Gulf Publishing Co., Lanham.

United States Census Bureau
Var. Various Places. National Archives and Records Commission. Ancestry.com. Accessed2020.

United States Department of Agriculture, Soil Conservation Service (USDA-SCS)
2020 *Soil Survey of Bexar County, Texas.* http://websoilseries.sc.egov.usda.gov/ Accessed January 22, 2020

University of Texas (UT) Online
2017 Perry-Castañeda Library Map Collection, Sanborn Fire Insurance Maps Sanborn Fire Insurance Maps - Texas (1877-1922), Available at: http://www.lib.utexas.edu/maps/sanborn/s.html Accessed January 22, 2020.

APPENDIX A: PROJECT DESIGN SHEET

LID FEATURE
±1600 SF
± 6–8 FEET DEEP

LID FEATURE
±2000 SF
± 6–8 FEET DEEP

LID FEATURE
±2000 SF
± 6–8 FEET DEEP

±270 LF~
2 X 24" RCP
STORM WATER DRAIN
± 1 FT DEEP

BRIDGE
FOUNDATION
± X FEET DEEP

EXISTING 8" VCP SEWER (SAWS JOB No. OM-3201)

EXISTING 18" VCP SEWER (SAWS JOB No. OM-3201)

SINGLE PHASE URD
± 3–4 FEET DEEP

±350 LF~PRIMARY
UNDERGROUND ELECTRIC
±3–4 FT DEEP

EXISTING 10" VCP SEWER (SAWS JOB No. OM-5605)

±255 LF~PRIMARY
UNDERGROUND ELECTRIC
JOINT TRENCH WITH
SINGLE PHASE
± 4–5 FEET DEEP

±250 LF~
8" SANITARY
SEWER MAIN
± 5–10 FT DEEP

SIDEWALK AND
PATIO GRADING
±25800 SF
± 1 FEET DEEP

±140 LF~6"
FIRE LINE
± 4–8 FT DEEP

±100 LF UTILITY TRENCH
± 4–5 FEET DEEP

EXISTING 2" GAS

EXISTING 8'x5' SBC

EXISTING 8" DI WATER (SAWS JOB No. 79-5036)

EXISTING 8" VCP SEWER (SAWS JOB No. OM-5605)

EXISTING 2" GAS

EXISTING 6" CI WATER
(SAWS JOB No. 1036)

EXISTING 10" VCP SEWER
(SAWS JOB No. OM-5605)

LID FEATURE
± 6 FEET DEEP

E ASHBY PL

±47 LF~8" SANITARY
SEWER LATERAL @
2.0% MIN.
± 5–7 FT DEEP

EXISTING 8'x5' SBC

EXISTING 4" GAS

EXISTING 8" VCP SEWER (SAWS JOB No. OM-5605)

TIE PIPE TO
EXISTING BOX
CULVERT
± 10 FT DEEP

STREET AND
SIDEWALK
GRADING
±17,170 SF
± 1 FEET DEEP

EXISTING 18" RL SEWER
(SAWS JOB No. 13-4746)

E ELMIRA ST.

RIVER RD

±390 LF~8"
WATER MAIN
± 4–8 FT DEEP

STREET AND
SIDEWALK GRADING
±15,600 SF
± 1 FEET DEEP

EXISTING 6" DI WATER
(SAWS JOB No. 1036)

E TERRY CT

U.S. 281

VALERO ST

SAN ANTONIO RIVER

OFF-SITE SIDEWALK
± 1 FT (TYP.)

E ASHBY PLACE

E ELMIRA ST

PROJECT LIMITS
SCLAE: 1" = 100'

LEGEND:

- PROPOSED UNDERGROUND ELECTRIC UTILITIES
- PROPOSED UNDERGROUND SEWER, WATER, GAS UTILITIES AND DRAINS
- PROPOSED LID FEATURES WITH EXCAVATION
- PROPOSED SIDEWALK AND PATIO GRADING WITH EXCAVATION

SCALE: 1"= 30'
0' 30' 60' 90'

NO.	REVISION	DATE
1	100% DD ISSUE	1/6/20
2	SUPERSTRUCTURE PERMIT	2/10/20
0	BUILDING PERMIT	4/21/20

PAPE-DAWSON ENGINEERS
SAN ANTONIO I AUSTIN I HOUSTON I FORT WORTH I DALLAS
2000 NW LOOP 410 I SAN ANTONIO, TX 78213 I 210.375.9000
TBPE FIRM REGISTRATION #470 I TBPLS FIRM REGISTRATION #10028800

BORDEN PARK
SAN ANTONIO, TEXAS
ARCHEOLOGY EXHIBIT

PLAT NO. 20-11800070
JOB NO. 11792-10
DATE FEBRUARY 2019
DESIGNER MC
CHECKED WK DRAWN RG
SHEET C500

APPENDIX B: TRENCH PROFILE DATA

Trench Profile Data

Trench	Zone	Stratification Thickness (cmbs)	Boundary	Color	Mottles	Texture	Structure	Consistency	Other (Bioturbation, inclusions, etc)	Artifacts	Other Comments
BHT-1	I	0-2	Abrupt	10YR2/1 Black	-	Asphalt	-	-	-	-	Asphalt
	II	2-8	Abrupt	5YR5/6 Yellowish red	-	Gravel road base	-	-	-	-	Fill
	III	8-26	Abrupt	10YR7/3 Very pale brown	-	Gravel road base	-	-	-	-	Fill
	IV	26-87	Gradual	10YR3/1 Very dark gray	-	Silty clay	Medium angular blocky	Friable	Very few snail shell	-	Natural
	V	87-200	Gradual	10YR3/2 Very dark grayish brown	-	Silty clay	Medium angular blocky	Fiable	Very few snail shell	-	Natural
	VI	200-250	Unobserved	10YR4/2 Dark grayish brown	-	Silty clay	Medium angular blocky	Firm to friable	-	-	Natural
BHT-2	I	0-2	Abrupt	10YR2/1 Black	-	Asphalt	-	-	-	-	Fill
	II	2-5	Abrupt	5YR5/6 Yellowish red	-	Gravel road base	-	-	-	-	Fill
	III	5-15	Abrupt	10YR7/3 Very pale brown	-	Gravel road base	-	-	-	-	Natural
	IV	15-140	Unobserved	10YR3/2 Very dark grayish brown	-	Silty clay	Medium angular blocky	-	Very few snail shell	Within possible posthole: 1 faunal bone (33 cmbs) , 5 ferrous metal frags (80-100 cmbs), several uncut LMST cobbles scatter throughtout	Natural
BHT-3	I	0-10	Smooth, very abrupt	10YR7/4 Very pale brown	-	Gravel road base	-	Hard and compact	-	-	Fill
	II	10-40	Smooth, very abrupt	10YR7/3 Very pale brown	-	Gravel road base	-	-	-	-	Fill
	III	40-52	Smooth, clear	10YR3/1 Very dark gray	-	Clay	Blocky angular	Firm	Few pea gravels, few CaCO3 flecks	-	Natural
	IV	52-88	Smooth, gradual	10YR5/2 Grayish brown	-	Clay loam	Blocky sub-angular	Friable	Very few LMST sub-round gravels	-	Natural
	V	88-130	Unobserved	10YR5/2 Grayish brown	10YR6/4 Light yellowish brown	Clay loam	Blocky sub-angular	Friable	Common LMST sub-round gravels	-	Natural
BHT-4	I	0-33	Abrput	10YR7/4 Very pale brown	-	Gravel road base	-	-	-	-	Fill; Terminated due to concrete impasse
BHT-5	I	0-47	Abrupt	10YR7/4 Very pale brown	-	Gravel road base	-	-	-	-	Fill
	II	47-82	Gradual	10YR3/1 Very dark gray	-	Silty clay	Medium angular blocky	Firm-friable	Very few sub-round LMST pebbles	Very few red brick frags, 1 colorless window glass shard, 1 wire nail, 1 charcoal frag, 1 asphalt frag, and very few slag frags	Mixed
	III	82-163	Gradual	10YR4/3 Brown	-	Silty clay	Medium angular blocky	Firm-friable	Very few sub-round LMST pebbles	-	Natural
	IV	163-210	Unobserved	10YR4/4 Dark yellowish brown	-	Silty clay	Medium angular blocky	Firm-friable	Common CaCO2	-	Natural
BHT-6	I	0-17	Gradual	10YR3/2 Very dark grayish brown	-	Silty clay	Fine angular blocky	Friable	-	-	Natural
	II	17-63	Gradual	10YR4/2 Dark grayish brown	-	Clay loam	Fine angular blocky	Friable	<2% CaCO3 flecks	-	Natural
	III	63-183		10YR5/4 Yellowish brown	-	Clay loam	Fine angular blocky	Friable	approx. 5% CaCO3 flecks and nodules	-	Natural

Trench Profile Data

Trench	Zone	Stratification Thickness (cmbs)	Boundary	Color	Mottles	Texture	Structure	Consistency	Other (Bioturbation, inclusions, etc)	Artifacts	Other Comments
BHT-7	I	0-7	Smooth, clear	7.5YR7/6 Reddish yellow	-	LMST gravel fill	Granular	Loose	50% angular LMST gravels	-	Fill
	II	7-16	Smooth, clear	10YR2/1 Black	-	Clay	Platy	Friable	-	-	Fill
	III	16-21	Smooth, clear	10YR5/8 Yellowish brown	-	LMST gravel fill	Granular	Loose	50% angular LMST gravels	-	Fill
	IV	21-25	Smooth, clear	10YR5/3 Brown	-	LMST gravel fill	Granular	Loose	50% angular LMST gravels	Common red brick frags	Fill
	V	25-62	Gradual	10YR2/2 Very dark brown	-	Silty clay	Fine angular blocky	Friable	50% angular LMST gravels	Unidentified ferrous metal, concrete fence post, 7-up green glass, cololess glass, painted plaster machine-made brick frag, knife blade, stoneware frag w/ blue glaze, brass pipe fitting, rubber ball	Mixed
	VI	62-170	Gradual	10YR3/3 Dark brown	-	Silty clay	Fine angular blocky	Friable	<2% CaCO3 flecks	-	Natural
	VII	170-205	Unobserved	10YR5/6 Yellowish brown	-	Silty clay	Medium angular blocky	Friable	approx. 5% CaCO3 flecks and nodules	-	Natural
BHT-8	I	0-23	Smooth, clear	10YR6/3 Pale brown	-	LMST gravel fill	Granular	Loose	50% angular LMST gravels	-	Fill
	II	23-36	Smooth, gradual	10YR4/2 Dark grayish brown	-	Silty clay	Medium angular blocky	Friable	<2% CaCO3 flecks	-	Natural
	III	36-66	Smooth, gradual	10YR6/4 Light yellowish brown	-	Silty clay	Medium angular blocky	Friable	5-10% CaCO3 flecks	-	Natural
	IV	66-237	Unobserved	10YR6/4 Light yellowish brown	-	Silty clay	Medium angular blocky	Friable	50% CaCO3 flecks and nodules	-	Natural
BHT-9	I	0-30	Smooth, clear	10YR6/3 Pale brown	-	LMST gravel fill	Granular	Loose	50% angular LMST gravels	-	Fill
	II	30-49	Smooth, gradual	10YR4/2 Dark grayish brown	-	Silty clay	Medium angular blocky	Friable	<2% CaCO3 flecks	-	Natural
	III	49-85	Smooth, gradual	10YR6/4 Light yellowish brown	-	Silty clay	Medium angular blocky	Friable	5-10% CaCO3 flecks	-	Natural
	IV	85-246	Unobserved	10YR6/4 Light yellowish brown	-	Silty clay	Medium angular blocky	Friable	50% CaCO3 flecks and nodules	-	Natural
BHT-10	I	0-29	Clear, wavy	10YR5/3 Brown	10YR2/2 Very dark gray	Sandy LMST gravel fill	Granular	Loose	Approx. 50% angular LMST gravel	-	Fill
	II	29-39	Smooth, abrupt	10YR7/2 Light gray	-	LMST gravel fill	Granular	Loose	Approx. 90% angular LMST gravel	-	Fill
	III	39-92	Smooth, gradual	10YR2/2 Very dark brown	-	Silty clay	Medium angular blocky	Friable	<2% snail shell frag, <2% CaCO3 flecks	-	Natural
	IV	92-270	Smooth, gradual	10YR5/4 Yellowish brown	-	Silty clay	Medium angular blocky	Friable	<2% CaCO3 flecks	-	Natural
	V	270-290	Unobserved	10YR5/4 Yellowish brown	-	Cemented LMST gravel	Cemented	Very firm	100% sub-round LMST pebbles and gravel	-	Natural
BHT-11	I	0-17	Smooth, clear	10YR6/3 Pale brown	-	Sandy LMST gravel fill	Granular	Loose	Approx 50% angular LMST gravel	-	Fill
	II	17-31	Smooth, abrupt	7.5YR4/6 Strong brown	-	Sandy LMST gravel fill	Granular	Loose	Approx. 90% angular LMST gravel	-	Fill
	III	31-197	Smooth, gradual	10YR3/1 Very dark gray	-	Silty clay	Medium angular blocky	Friable	<2% CaCO3 flecks	1 tertiary flake frag (130 cmbs), observed while screen backdirt	Natural
	IV	197-307	Unobserved	10YR5/4 Yellowish brown	-	Silty clay	Medium angular blocky	Friable	<2% CaCO3 flecks	-	Natural

Trench Profile Data

Trench	Zone	Stratification Thickness (cmbs)	Boundary	Color	Mottles	Texture	Structure	Consistency	Other (Bioturbation, inclusions, etc)	Artifacts	Other Comments
BHT-12	I	0-43	Smooth, gradual	10YR4/2 Dark grayish brown	-	Silty clay	Coarse angular blocky	Firm	Common roots and rootlets	1 modern plastic gatorade bottle	Fill
	II	43-107	Smooth, abrupt	10YR3/1 Very dark gray	7.5YR4/6 Strong brown - medium, common, prominent sitly clay	Silty clay	Coarse angular blocky	Firm	Few roots and rootlets	1 modern plastic soda bottle	Fill
	III	107-115	Unobserved	10YR8/1 White	-	Gravel fill	Granular	Loose	-	-	Fill; Terminated upon encountering geotextile underlain by gravel
BHT-13	I	0-22	Abrupt, irregular	10YR5/4 Yellowish brown	10YR 8/1 White - Common, medium, distinct	Flowable fill	Granular	Loose	LMST mottles	-	Fill
	II	22-56	Gradual, wavy	10YR3/1 Very dark gray	10YR 8/1 White - Few, fine, faint	Clay loam	Granular	Very friable	-	-	Natural
	III	56-144	Gradual, irregular	10YR3/2 Very dark grayish brown	10YR 8/1 White - Few, medium, faint	Clay loam	Granular	Friable	small LMST	-	Natural
	IV	144-244	Unobserved	10YR5/1 Gray	10YR 8/1 White - Common, medium, faint	Clay loam	Sub-angular	Friable	redox common, faint; med. LMST common	-	Natural
BHT-14	I	0-10	Very abrupt, smooth	10YR2/1 Black	-	-	-	-	-	-	Asphalt
	II	10-30	Abrupt, wavy	10YR5/4 Yellowish brown	10YR 8/1 White - Common, fine, faint	Clay loam	granular	Friable	LMST, common; roots/rootlets common	-	Fill
	III	30-54	Gradual, wavy	10YR4/1 Dark gray	-	Clay loam	Granular	Friable	roots/rootlets, LMST	Solarized clear glass grags, approx. 50 cmbs; LMST bricks and red grick; paper; 1 terracotta pipe frag	Fill; Possible brick feature
	IV	30-155	Abrupt, irregular wavy	10YR5/2 Grayish brown	10YR 8/1 White - Common, medium, faint	Clay loam	Sub-angular	Friable	Roots/rootlets, redox, LMST	red brick	Fill; In W wall of trench on S half only
	V	54-130	Clear, sloping	10YR4/2 Dark grayish brown	10YR 4/3 Brown - Common, medium, faint	Clay loam	Sub-angular	Firm	Root/rootlets; clay inclusions	LMST brick at 110 cmbs; 1 faunal bone; red brick frags, 2 "ALAMO" stamped red brick	Fill; Possible brick feature
	VI	130-155	Gradual, sloping	10YR5/1 Gray	-	Clay loam	Sub-angular	Firm	Under sloping LMST bricks	LMST bricks	Fill; Both walls display sloping boundary at different angles
	VII	155-247	Unobserved	10YR8/2 Very pale brown	-	Clay loam	Granular	Friable	-	-	Natural
BHT-15	I	0-8	Very abrupt, smooth	10YR2/1 Black	-	-	-	-	-	-	Asphalt
	II	8-26	Abrupt, wavy	10YR5/4 Yellowish brown	10YR 8/1 White - Many, medium, distinct	Floable fill	Granular	Loose	LMST mottles	-	Fill
	III	26-122	Gradual, irregular	10YR4/3 Brown	10YR 3/1 Very dark gray - Common, fine, faint	Clay loam	Friable	Granular	LMST common, distinct; common redox; common black clay inclusions	-	Fill; Excavation terminated in N half of trench due to water line running E-W
	IV	122-230	Unobserved	10YR7/1 Light gray	10YR 8/1 White - Common, fine, faint	Silty clay loam	Friable	Granular	LMST incl; Asphalt incl; small-large gravels common		Fill; Terminated at concrete utility box; zone disturbed by previous construction, soils mixed; Zone IV observed in S half of trench only